INDEX

	Page
Opinion below	1
Jurisdiction	1
Questions presented	2
Statute involved	3
Statement	3
The district court's opinion, findings of fact, and conclusion of law	4
Introduction to statement of the facts	9
Cellophane, its method of manufacture, and importance of secret processes and technology	12
Du Pont's position in the industry, its earnings, and the industry's growth	15
Agreements excluding or tending to exclude competitors	19
Sylvania's entry into the business in 1930 and Olin's entry in 1951	26
Extent of Sylvania's competition	30
Du Pont's patents and patent policies	32
Du Pont's prices and pricing policy	37
Du Pont research	41
The district court's concept of "other flexible packaging materials"	42
Summary of argument	47
Argument:	
I. The district court erred in holding that, because du Pont did not have monopoly power over trade in "flexible packing materials", it did not monopolize trade in cellophane	64
A. The manufacture and sale of cellophane constitutes a "part" of interstate commerce within the meaning of Section 2 of the Sherman Act	64
B. Du Pont's lack of monopoly power over trade in "flexible packaging materials" does not negative its possession of monopoly power over trade in cellophane	67

Argument—Continued.

Page

1. The district court held that the Government's case failed because of the existence of a free market in substitute products 67
2. A charge of monopolizing commerce in a product is not defeated by showing a free market in substitute products, at least if the substitutes are not both substantially fungible and like priced 69
3. Under the district court's findings and du Pont's own declarations, "other flexible packaging materials" are not substantially fungible substitutes for cellophane, nor are they sold in the same price range 76

II. The district court's findings of specific facts, as supplemented by undisputed evidence, establish that du Pont has illegally monopolized trade and commerce in cellophane.... 87

A. Du Pont had power to exclude competitors when it desired to do so.... 93

B. Du Pont had power to raise and control the price of cellophane..... 105

C. Du Pont's monopoly power may not escape the prohibitions of the Act since it was achieved and maintained by contracts and agreements which in themselves were illegal, or at the least, exclusionary..... 114

1. The initial agreement with La Cellophane illegally restrained trade and was exclusionary 114

Argument—Continued

Page

2. The technical interchange agreements with foreign cellophane producers also illegally restrained trade and were exclusionary 122
3. Du Pont's cross-licensing agreement with Sylvania was in illegal restraint of trade and exclusionary 126
4. Du Pont continued to possess monopoly power achieved by means of illegal and exclusionary agreements notwithstanding ultimate modification or cancellation of these agreements 131
5. Du Pont's research, technical skills, business efficiency and moistureproof patents do not constitute a defense.... 134

Conclusion 140

CITATIONS

Cases:

American Tobacco Co. v. *United States*, 328 U.S. 781 ..... 51, 52, 87, 88, 90, 99, 103, 110
Apex Hosiery Co. v. *Leader*, 310 U.S. 469..... 115
Du Pont Cellophane Co. v. *Birn & Wachenheim*, 17 C.C.P.A. 122 16
Fashion Originators' Guild v. *Federal Trade Commission*, 114 F. 2d 80, affirmed, 312 U.S. 457 ..... 49, 66, 75
Hartford-Empire Co. v. *United States*, 323 U.S. 386 130
Indiana Farmer's Guide Publishing Co. v. *Prairie Farmer Publishing Co.*, 293 U.S. 268..... 65, 66
Interstate Circuit Inc. v. *United States*, 306 U.S. 208 70
Local 167 v. *United States*, 291 U.S. 293..... 133
Mercoid Corp. v. *Mid-Continent Co.*, 320 U.S. 661 139

Cases—Continued

Page

O'Halloran v. *American Sea Green Slate Co.*, 207 Fed. 187, reversed, 229 Fed. 77 66
Schine Chain Theatres v. *United States*, 334 U.S. 110 ..... 63, 133
Standard Oil Co. v. *United States*, 283 U.S. 163 ... 73
Standard Oil Co. v. *United States*, 337 U.S. 293 83
Story Parchment Co. v. *Paterson Parchment Paper Co.*, 282 U.S. 555 65
Times-Picayune Publishing Co. v. *United States*, 345 U.S. 594 ..... 51, 66, 69, 73
Timken Roller Bearing Co. v. *United States*, 341 U.S. 593 ..... 58, 59, 115, 116-120
Transparent-Wrap Machine Corp. v. *Stokes & Smith Co.*, 329 U.S. 637 ..... 61, 128
United States v. *Addyston Pipe & Steel Co.*, 85 Fed. 271, affirmed, 175 U.S. 211 ..... 58, 59, 120
United States v. *Aluminum Co. of America*, 91 F. Supp. 333 129
United States v. *Aluminum Co. of America*, 148 F.2d 416 ..... 48, 52, 56, 62, 66, 69, 72, 88, 89, 91, 111, 115, 134, 135, 138, 140
United States v. *American Tobacco Co.*, 221 U.S. 106 115
United States v. *Associated Press*, 52 F.Supp. 362, affirmed, 326 U.S. 1 66
United States v. *Besser Mfg. Co.*, 96 F.Supp. 304, affirmed, 343 U.S. 444 139
United States v. *Columbia Steel Co.*, 334 U.S. 495 ..... 75, 76
United States v. *Corn Products Refining Co.*, 234 Fed. 964, appeal dismissed, 249 U.S. 621 ..... 66, 73-75
United States v. *Crescent Amusement Co.*, 323 U.S. 173 133
United States v. *General Electric Co.*, 272 U.S. 476 130
United States v. *General Electric Co.*, 80 F.Supp. 989 129
United States v. *General Electric Co.*, 115 F.Supp. 835 129
United States v. *Griffith*, 334 U.S. 100 ..... 52, 89, 92, 104, 140

Cases—Continued

Page

United States v. *Imperial Chemical Industries, Ltd.*, 100 F.Supp. 504 24

United States v. *National Lead Co.*, 63 F.Supp. 513, affirmed, 332 U.S. 319..... 60, 63, 115, 125, 126, 127, 134

United States v. *Paramount Pictures, Inc.*, 334 U.S. 131 on remand, 85 F. Supp. 881, judgment affirmed, 339 U.S. 974..... 49, 66, 71

United States v. *Standard Oil Co.*, 221 U.S. 1 ..... 42, 62, 65, 72, 90, 92, 133

United States v. *Timken Roller Bearing Co.*, 83 F. Supp. 284 ..... 58, 117, 119

United States v. *United Shoe Machinery Corp.*, 110 F.Supp. 295, affirmed, 347 U.S. 521, ... 52, 93, 99, 100, 122, 126, 135, 138

United States v. *U. S. Gypsum Co.*, 340 U.S. 76 129

United States v. *Yellow Cab Co.*, 332 U.S. 218 65

Statute:

Sherman Act, Act of July 2, 1890, 26 Stat. 209, as amended (15 U.S.C. 1 *et seq.*):

Sec. 1 ..... 71, 73, 76

Sec. 2 ..... 3, 47, 48, 64, 67, 70, 73, 87, 92

Sec. 4 3

Miscellaneous:

Stocking & Mueller, *The Cellophane Case and the New Competition*, 45 American Economic Review 29 ..... 17, 86, 97

tuted by du Pont, that cellophane had been given a wrong tariff classification and that the applicable duty was 60%, not 25%, ad valorem;[15] and thereafter imports were negligible (fngs. 631, 635-636, 638; R. 237, 238-239). In every year during the period 1930-1947, inclusive, imports were less than ½ of 1% of domestic production (GX-539, R. 3871). For the entire period they were less than 1/10 of 1% (*ibid.*).

For the 1924-1930 period, du Pont had a 100% monopoly of domestic production.[16] Sylvania began making cellophane in 1930, and in 1931 (the first year for which Sylvania's production is shown) du Pont had 87% and Sylvania 13% of total production (GX 531a, R. 3876). In the next two years Sylvania's share of total output was close to 20% (*ibid.*). Thereafter the two companies shared the business on a remarkably uniform basis —approximately 75% for du Pont and 25% for Sylvania (*ibid.*; fng. 308, R. 157).[17]

As to the profits and profit potentialities of du Pont's cellophane business during its initial years, the evidence is dramatic. When Du Pont Cellophane was organized in 1923, du Pont received

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[15] Finding 633 (R. 238); *Du Pont Cellophane Co.* v. *Birn & Wachenheim*, 17 C.C.P.A. 122, 123 (cited in note to finding 633).

[16] Findings 3 (R. 63), 13 (R. 66), 337 (R. 165).

[17] After 1933, du Pont's highest percentage of the total was 78.1 in 1949, and its lowest 73.5 in 1936 (GX-531a, R. 3876).

In the Supreme Court of the United States

OCTOBER TERM, 1955

No. 5

UNITED STATES OF AMERICA, APPELLANT

v.

E. I. DU PONT DE NEMOURS AND COMPANY

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

BRIEF FOR THE UNITED STATES

OPINION BELOW

The opinion of the district court (R. 53) is reported at 118 F. Supp. 41.

JURISDICTION

The final judgment of the district court was entered on February 23, 1954 (R. 341). Petition for appeal was filed and allowed on April 23, 1954 (R. 341, 344). The jurisdiction of this Court is conferred by Section 2 of the Expediting Act of February 11, 1903, 32 Stat. 823, 15 U. S. C. 29, as

52,000 shares of its stock and paid therefor $866,666.67 in cash, or $16.67 per share (fng. 22, R. 68; DX-735, R. 5402). French interests, which received the remaining 48,000 shares, sold these shares to du Pont in 1929 for stock of du Pont having a then market value of $12,129,600 (fng. 28, R. 69; DX-735, R. 5403), a sum equal to $252.70 for each share bought by du Pont. Thus, after the cellophane subsidiary had been operating only five years,[18] du Pont bought the minority interest at a price per share more than fifteen times the price which it had paid when the subsidiary was formed. This represents a *300% increase in value per year of operation.*

For the eleven years preceding the filing of the complaint in 1947, a period during which Sylvania was a thoroughly established producer and cellophane was no longer a novel product, du Pont's "operative return" on the fixed and working capital employed in its cellophane business averaged 31% and its "net return"[19] on such capital averaged approximately 16%, as shown below (GX-591, R. 4155):

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[18] The subsidiary was organized in 1923 but its initial production of cellophane was in April 1924 (fng. 3, R. 63).

[19] In computing "net return", allowance is made for federal income taxes, other over-all taxes paid by du Pont, bonuses to officers, and expenditures for fundamental chemical research. See Stocking & Mueller, *The Cellophane Case and the New Competition*, 45 American Economic Review 29, note 107, pp. 57-58.

amended by Section 17 of the Act of June 25, 1948, 62 Stat. 869. This Court noted probable jurisdiction of the appeal on October 14, 1954 (R. 351).

QUESTIONS PRESENTED

1. Whether, in the light of specific findings and undisputed evidence which show that there are no substitutes for cellophane which are either substantially fungible or like priced, it was error for the district court to resolve the question of du Pont's monopoly power over trade in cellophane upon the basis of what the court termed "the market for flexible packaging materials."

2. Whether, under the district court's findings of specific facts as supplemented by undisputed evidence, du Pont had both power to exclude others from the cellophane trade and power to raise and control the price of cellophane, and thus had the power to monopolize condemned by Section 2 of the Sherman Act.

3. Whether du Pont's monopoly power over trade in cellophane was achieved in substantial part by means of contracts and agreements which in themselves were illegal under the Sherman Act and which, at the least, were exclusionary in effect.

4. Whether Section 2 unconditionally prohibits monopoly power so achieved, and thereby precludes defense based upon the ground that du Pont's monopoly power resulted in part from its business skill and research, and in part from rights given by its moistureproof patents.

STATUTE INVOLVED

The Act of July 2, 1890, 26 Stat. 209, known as the Sherman Act, provides in part as follows:

> SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, * * * [15 U. S. C. 2].
>
> * * * * *
>
> SEC. 4 [as amended by the Act of March 3, 1911, Sec. 291, 36 Stat. 1167]. The several district courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations * * * [15 U. S. C. 4].

STATEMENT

This is a civil action under Section 4 of the Sherman Act charging E. I. du Pont de Nemours and Company ("du Pont") with monopolizing, attempting to monopolize, and conspiring to monopolize interstate commerce in cellophane and cellulosic caps and bands, in violation of Section 2 of the Act. The complaint was filed in December

1947 in the United States District Court for the District of Columbia, but was transferred to the District of Delaware on defendant's motion under 28 U. S. C. 1404(a). Trial of the case began in January 1951 and ended some 16 months later in May 1952. Final arguments were heard in January 1953, and in December 1953 the court rendered an opinion resolving all issues in favor of du Pont. Judgment dismissing the complaint was entered on February 23, 1954.

The Government's proof was almost entirely documentary and consisted in the main of documents drawn from du Pont's files. The defendant introduced in evidence over 1,000 exhibits (of which 16 were summaries of 16 depositions), and 20 witnesses testified in its behalf.[1]

The Government's appeal attacks only the ruling that du Pont has not monopolized trade in cellophane. It raises no issue as to caps and bands, or as to attempt or conspiracy to monopolize interstate commerce in cellophane.

The District Court's Opinion, Findings of Fact, and Conclusion of Law

The lengthy opinion filed by the district court first notes the varying concepts of monopoly expressed by economists (R. 54-60), and then makes

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[1] Of the 20, seven were officers or employees of du Pont (R. 2083, 2119, 2178, 2434, 2467, 2584; Tr. 4735, not printed), one a former officer (R. 2760), and four former employees (R. 2018, 2058, 2405, 2571).

the following statement of the issues raised by the monopolization charge (R. 62):

> The charge here is duPont monopolizes cellophane. The charge involves two questions: 1. does duPont possess monopoly powers; and 2, if so, has it achieved such powers by "monopolizing" within the meaning of the Act and under United States v. Aluminum Company of America, 2 Cir., 148 F. 2d 416, 429. Unless the first is decided against defendant, the second is not reached.

The opinion thereupon sets forth the grounds for the court's holding that duPont "does not have monopoly power" (R. 62-63, 285-311). On the court's statement of the controlling issues, this holding disposed of the monopolization charge, but the opinion passes upon the second question initially posed—whether duPont has achieved monopoly powers by "monopolizing." The court held that it had not—that any monopoly powers possessed by duPont resulted from "technical skill and competitive activity", and that one who achieves monopoly by such means does not "monopolize" within the meaning of the statute (R. 311-317). The court's basic ruling in this connection is stated as follows (R. 316):

> Its [duPont's] "monopoly" was "thrust upon" it within the true meaning of the decisions and, wholly apart from the existence

of the moisture-proof patent,[2] the facts as to how duPont achieved its position constitutes a defense to the charge of "monopolization".

The opinion considers two further questions, "Is origin of du Pont's position lawful?", and "Was du Pont's position maintained by predatory assertion of monopoly power?" (R. 51-52). To the first question, the answer was "Yes" (R. 318-323), and to the second "No" (R. 324-338).

The court incorporated in its opinion 854 findings of fact (R. 63-285). So far as now material, the subjects dealt with are: du Pont's entry into the cellophane business; the "market setting" in which cellophane is sold; du Pont's research; its lowering of cellophane prices; "competition" between cellophane and other "flexible packaging materials" and results thereof; competition between du Pont and the one other domestic cellophane manufacturer; du Pont's moistureproof patents; its "alleged" predatory practices; and absence of conspiracy to monopolize, attempt to monopolize, or monopolization by du Pont. See R. 49-51.

Du Pont had submitted to the district court 854 findings.[3] Each of the court's 854 findings is identical in substance with the correspondingly

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[2] The court previously had broadly declared that this patent "represents a defense to the monopoly charge" (R. 312).

[3] Du Pont's proposed findings and its district court brief are part of the record filed with this Court. By stipulation, either party may refer to or quote from these documents (R. 347).

numbered proposed finding.[4] Finding 689 (R. 250) is a striking instance of identity between the proposed findings and the court's findings notwithstanding a glaring and patent error embodied in both.[5]

The court's findings will be extensively referred to in our statement of the facts. At this point we mention only one aspect; which is of particular and basic significance in this appeal, namely, that large segments of the findings, as well as the court's ultimate decision, are keyed to what the district court termed "flexible packaging materials" and the "market" for such materials. The court grouped 128 findings under the heading "Competition Between Cellophane and Other Flexible Packaging Materials" (R. 111), and it used the words "flexible packaging materials" in

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[4] Changes of an editorial nature were made in practically every finding and, counting every separate change, there were more than 2000. But the changes consist of repeated omission of such words as "the", "that", "its", etc., and of adjectives, adverbs, or conjunctive words; occasional substitution of a word or phrase without material change in meaning; and omission of various minor facts. We have found no instance in which the court added something to a proposed finding aside from its addition of the words enclosed in parentheses in finding 37 (R. 72).

[5] Both the proposed finding and the court's finding state that in May 1952 "Sylvania's annual productive capacity was 72,000,000 lbs.", and that Sylvania "plans to expand capacity to 1,000,000 lbs." Not only is the 1,000,000 figure erroneous on the face of the finding itself, but GX-410 (R. 3616), cited in support, states that Sylvania is working on a program to expand its capacity to "100,000,000 pounds", and finding 695 (R. 252) states that Sylvania "planned expansion of cellophane capacity to 100,000,000 lbs."

85 findings[6] and equivalent words in 13 others.[7] Yet these words are not defined, either in the court's findings or in its opinion. This is the more striking in that the court's concept of "the market for flexible packaging materials" was central to its decision. Finding 37 reads (R. 72): "The relevant market for determining the extent of du Pont's market control is the market for flexible packaging materials (judicial notice after examination and observation)."[8] From this finding and finding 690—"du Pont has been unable to achieve as much as 20% of production of flexible packaging materials" (R. 250)[9]—the conclusion inevitably followed (expressed in finding 840) that du Pont has not achieved "market control or monopoly power as to trade and commerce in cellophane" (R. 283).

The court appended to its opinion a single "conclusion of law", which reads (R. 339):[10]

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[6] Findings 37, 39-42, 47-49, 54-56, 58-63, 66, 73-74, 77-80, 85-86, 91, 96, 111, 113, 122-123, 130, 132-134, 138, 140, 151-152, 155, 158-159, 162-164, 190, 197, 206, 221, 235, 237, 241, 251-252, 254, 256, 259-260, 263, 265, 268, 276, 279-280, 283, 291, 349-352, 453, 687-688, 690, 692, 697, 703, 709, 712, 719, 725-726, 820, 825, 838.

[7] Findings 50, 57, 75-76, 150, 165, 168-169, 342, 394, 399, 652, 699.

[8] Finding 37 is amplified in finding 838 (R. 283).

[9] Finding 280 similarly states that "du Pont cellophane accounted for less than 20% of flexible packaging materials consumed in the United States" in 1949 (R. 148).

[10] For purposes of comparison, we quote the "Conclusion" of du Pont's district court brief (enclosing in brackets what the court omitted and italicizing what it added):

> [This complaint was framed without real knowledge of the business involved.] The [actual] facts destroy the

The facts destroy the charges here made. There has been no monopolization or conspiracy or combination or attempt to monopolize shown. The record reflects not the dead hand of monopoly but rapidly declining prices, expanding production, intense competition stimulated by creative research, the development of new products and uses and other benefits of a free economy. DuPont nor any other American company similarly situated should be punished for its success. Nothing warrants intervention of this court of equity. The complaint should be dismissed.

Introduction to Statement of the Facts

Our statement of the facts will be based upon those found by the district court, supplemented by facts shown by undisputed documentary evidence or testimony of du Pont witnesses. We accept without challenge the court's findings of specific fact, except those rendered misleading by omission of established material facts. Respecting the findings, what we challenge are various conclusory

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[unfounded] charges [there] *here* made. There has been no monopolization or conspiracy or combination or attempt to monopolize shown. The record reflects not the dead hand of monopoly but rapidly declining prices, expanding production, intense competition stimulated by creative research, the development of new products and uses and other benefits of a free economy. Du Pont *nor any other American company similarly situated should* [not] be punished for its success. Nothing warrants intervention of [a] *this* court of equity. The complaint should be dismissed.

findings [11] which are enmeshed with the court's interpretation of the statute or which result from application of legal tests or principles which we deem erroneous.

Since the findings and evidence relate to a number of different aspects of the case, requiring somewhat independent presentation, the following topical outline of the balance of the Statement may serve to show the relationship of the parts to the whole:

What cellophane is, its method of manufacture, and the major importance thereto of technology.

Du Pont's dominant position in the industry, its high rate of earnings, and the industry's spectacular and consistent growth.

The agreements by which du Pont excluded or tended to exclude all others from manufacture and sale of cellophane in this country.

The sole newcomer to the business during a period of nearly 30 years, Sylvania Industrial Corporation ("Sylvania") in 1930, and the post-complaint entry into the business by Olin Industries, Inc. ("Olin"), and the circumstances under which each became a competitor of du Pont.

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[11] The court labeled findings 835-854 "Conclusions of the Master Facts" (R. 282). Certain other findings are, however, equally conclusory in nature. *Cf.*, findings 37 (R. 72), 158 (R. 114), 721 (R. 259), 727 (R. 260).

The limited scope of Sylvania's actual and potential competition.

Du Pont's patent policies, and the competition-limiting aspects of its cross-licensing agreement with Sylvania.

Du Pont's unchallenged dominion over the price of cellophane, and its policy of reducing price to the extent consistent with securing high operating earnings.

Du Pont's research as a factor in expansion of cellophane sales.

The group of products differing widely from cellophane and from each other in price, physical characteristics and packaging service rendered, which the court collectively labelled "flexible packaging materials" and utilized (erroneously in our view) as the basis for its definition of the market.

As a preliminary matter, we note that du Pont has been engaged in the cellophane business since 1923 and that Sylvania has been engaged in this business since 1930. In referring to du Pont's cellophane business, we shall make no distinction between the 1923-1936 period, during which du Pont carried on the business through two successive subsidiaries,[12] and the subsequent period dur-

[12] Du Pont had majority stock control of the subsidiary operating from 1923 to some time in 1929, and complete ownership of the successor subsidiary which operated until du Pont took over the company in 1936 (fngs. 1 (R. 63), 22 (R. 68)).

ing which it has itself been making and selling cellophane. Likewise, in referring to Sylvania's cellophane business, no distinction will be made between the period before and after 1946, in which year American Viscose Company acquired Sylvania and continued its cellophane business (fng. 52, R. 75).

Cellophane, Its Method of Manufacture, and Importance of Secret Processes and Technology

Cellophane is a transparent, flexible sheeting composed of regenerated cellulose (fng. 7, R. 64). It is manufactured by a chemical process which involves (1) dissolving the cellulose fibers of wood pulp to form a specified viscose solution, (2) ejecting this solution through a narrow slot into a chemical bath which coagulates it into a thin nonfibrous film, and (3) running the resulting sheet through a succession of purifying baths in the course of which a softener is absorbed (fng. 9, R. 65). The high-speed casting machines which extrude the viscose solution produce films with an allowable variation in gauge of only 1/10,000th of an inch (fng. 11, R. 66). Moistureproof cellophane is manufactured by combining with the film a moistureproof coating composition (fng. 9). As the film passes through du Pont's six-story coating tower, a coating 1/100,000th of an inch thick is applied on each side of the film (fng. 11). The chemical processes essential to successful commercial production of both plain and moistureproof cellophane require "a degree of technical knowledge

and controls" (fng. 9).[13] The mechanical aspects of the operation are intricate (*ibid.*).

By varying the thickness of the sheet, the amount of softener, and the composition of the coating, and by adding dyes, du Pont has developed many different types of cellophane tailored for particular end uses (fngs. 7 (R. 64-65), 89 (R. 95), 101-102 (R. 99)). In 1949 it sold 108 different varieties of cellophane (fng. 103, R. 99).

A French corporation, La Cellophane Societe Anonyme ("La Cellophane"), was the first company to manufacture cellophane on a commercial basis (fng. 14, R. 66). It utilized the process and machinery transferred to it by a Frenchman, who had invented them about 1912 (fng. 15, R. 67). In 1923 du Pont became interested in entering the cellophane business, and conducted negotiations for acquisition of the American rights to La Cellophane's process (fng. 18, R. 67). A preliminary agreement made in January 1923 recited that du Pont and La Cellophane desired to form a corporation to manufacture cellophane in the United States (GX-1458, R. 3823). The agreement provided that La Cellophane would fully disclose its process and other pertinent data to du Pont representatives, that du Pont should procure from each such representative a written agreement to keep all information received "strictly secret and confidential", and that, if du Pont decided against

[13] The words quoted may be compared with the corresponding words of du Pont's proposed finding 9: "a high degree of technical knowledge and intricate controls."

going into the cellophane business "all memoranda, notes and written data" gathered by its representatives "shall be delivered and surrendered" to La Cellophane (*id.*, R. 3826).

Following such disclosure, the parties entered into an agreement dated June 9, 1923, pursuant to which they formed Du Pont Cellophane Company, Inc. ("Du Pont Cellophane"), an American company all of whose stock was owned by du Pont and La Cellophane (fngs. 22, 24, R. 68-69). This company acquired "the entire knowledge gained by La Cellophane as the result of years of research in developing the process" (fng. 33, R. 71). The technical aid and information thus granted included "designs for all machinery"; information as to "chemical compositions and controls" from the initial step in manufacture to the ultimate product; disclosure of all phases of "proven production line know-how," through "plant inspection, manuals, and training of personnel" in France and the United States (fng. 33, R. 71). In addition, French technicians designed the initial plant, manufactured some of the machinery in France, and "supervised the operations and training of essential personnel" (*ibid.*).

Du Pont "could not have developed a successful process for cellophane manufacture in less than five to eight years and then only at very substantial cost" (fng. 32, R. 70).[14] Du Pont has continued to

[14] As elsewhere stated, du Pont was not staffed to develop at a reasonable cost the "chemical and engineering techniques * * * essential to commercial manufacture" (fng. 29, R. 70).

use La Cellophane's "basic process" (*ibid.*), and still employs the "fundamentals" of this process (fng. 36, R. 71). La Cellophane has maintained the secrecy of its process "by a system of fences, plant guards, passes," and du Pont's cellophane subsidiary "used similar means to maintain secrecy" (fng. 34, R. 71). The only other "commercially developed" process for continuous manufacture, that used by a German concern referred to as Wolff, is inferior in terms of cost of manufacture and quality of product (fng. 32, R. 70).

Sylvania entered the cellophane business by virtue of a comprehensive, though unauthorized, disclosure of La Cellophane's process (*infra*, pp. 26-27.) Olin's entry into the business in 1951 was also by virtue of a full disclosure of this process (*infra*, pp. 28-29). During a protracted earlier period, Olin had sought to enter the business, but had been unable to acquire or develop a manufacturing process which gave promise of commercial success (*infra*, pp. 29-30).

Du Pont's Position in the Industry, its Earnings, and the Industry's Growth

Since du Pont first began making cellophane in 1924, it has completely dominated the American market for the product. Prior to 1930 imports were about 20% of domestic consumption (fng. 630, R. 237), but there were serious obstacles, including "poorer quality", to successful sale of imported cellophane (fngs. 629, 632; R. 237). In 1929 it was judicially determined, in a suit insti-

	% Operative Return	% Net Return
1937	25.2	19.4
1938	27.5	22.5
1939	36.8	28.7
1940	36.1	20.4
1941	39.6	15.2
1942	26.6	8.4
1943	33.6	9.0
1944	33.8	9.7
1945	34.3	13.9
1946	29.5	16.7
1947	19.1	11.2
Total	342.1	175.1
Average	31.1	15.9

The foregoing earnings from cellophane operations were computed by du Pont in the regular course of its business, and these computations, together with present and forecast "operative return" and "net return" from its cellophane business, were given consideration in passing upon the question of increasing cellophane prices (GX-591, R. 4155; fng. 711, R. 257).[20]

Cellophane production and sales have grown consistently and spectacularly. Finding 337 (R. 165) gives the dollar sales for the years 1924-1950, inclusive, shown separately for du Pont and Sylvania. GX-531a (R. 3876) gives for the same years the production of du Pont, Sylvania, and "industry total". Total production increased as follows: from 1924 to 1930, more than forty times; from 1930 to 1940, more than seven times; from 1940 to 1950,

[20] The manager of du Pont's Cellophane Division, after setting forth the figures on past, current and forecast earnings from du Pont's cellophane business, pointed out that a 7½% increase in du Pont's average selling prices "would increase the operative return from approximately 30% to approximately 40%" (GX-591, R. 4156).

more than two and one-third times (*ibid*). During the entire 27-year period there was an increase over the preceding year in all but three years.[21] The growth in dollar sales was parallel (fng. 337). We also note that total dollar sales are of impressive size—in round figures, $72,800,000 in 1947, $128,600,000 in 1950, and for the entire period over $1,000,000,000 *(ibid.)*.

The principal growth in sales was in moistureproof cellophane (fng. 337), which, according to the court's finding, "accounted for over 80% of all cellophane sales in the United States" (fng. 335, R. 164).[22]

Agreements Excluding or Tending to Exclude Competitors

Du Pont embarked upon manufacture of cellophane under the aegis of agreements giving it a monopoly of the markets of North America and

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[21] These years are 1927, 1942 and 1944. The two latter years are not true exceptions since the Government "curtailed" cellophane production during World War II (fng. 346, R. 167). As to 1927, production in that year was only about 1% below that of 1926.

[22] The words quoted are those used in du Pont's proposed finding 335. The finding in question is materially broader than what is stated in the exhibit cited in its support, namely, that in 1940 moistureproof cellophane was "nearly 80%" of "our [du Pont's] volume" (DX-367, R. 4826). The finding is also inconsistent with the 1940 sales figures in finding 337. As there shown, in that year total cellophane sales were $41,280,885 and total moistureproof cellophane sales were $31,191,561, so that moistureproof cellophane accounted for less than 76%, not "over 80%", of all sales.

Central America as to all cellophane made by the successful La Cellophane process.[23]

By the contract of June 9, 1923, between du Pont and French interests acting on behalf of La Cellophane, the parties agreed to form a company (Du Pont Cellophane) to manufacture cellophane in the United States, with du Pont receiving 52% and French interests 48% of the new company's stock (fngs. 21-22, R. 68). This agreement, as supplemented by the contract of December 26, 1923, granted to Du Pont Cellophane "the exclusive right to make and sell in North and Central America under La Cellophane's secret processes" (fng. 24, R. 69).[24]

The contract of June 9, 1923, transferred to Du Pont Cellophane "an unqualified, unrestricted and exclusive right" to every process relating to cellophane manufacture owned by La Cellophane or which "may hereafter be acquired by it", and conferred upon Du Pont Cellophane "the exclusive right to manufacture cellophane in North and Central America" (GX-1001, par. 9, R. 3251-3252). La Cellophane agreed that, except through Du Pont Cellophane, it would not market cellophane in said

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[23] Not only was this process the first to be commercially developed (fng. 14, R. 66), but it has remained superior, cost-wise and quality-wise, to any other process developed later (fng. 32, R. 70).

[24] The contracts of June 9, 1923, and December 26, 1923, were executed by du Pont and Arena Trading Corporation, but each contract recites that the latter corporation was entering into the contract both on its own behalf and on behalf of La Cellophane (GX-1001, R. 3245; GX-1002, R. 3257).

territory, and would not prior to December 31, 1935, manufacture cellophane therein, directly or indirectly, "either as stockholder, principal or agent, or in any other capacity" (*id.*, pars. 10-11, R. 3252-3253).[25] La Cellophane further agreed to enter into a contract with Du Pont Cellophane providing that each furnish to the other every type of technical information relating to production of cellophane "that may be requested at any time", and that all such information and technical data shall be considered "secret and confidential, and shall not be disclosed to any other person, firm or corporation" (*id.*, par. 12, R. 3253).

As provided in the foregoing contract, La Cellophane and Du Pont Cellophane entered into a supplementary contract dated December 26, 1923. By this contract, La Cellophane transferred to Du Pont Cellophane all of its patent rights, processes, apparati, and information relating to cellophane, "in so far as all countries in North and Central America are concerned", and agreed to transfer all such rights, processes, etc., subsequently "discovered, invented or developed" (GX-1002, par. 1st, 3rd, R.

[25] A memorandum dated May 20, 1935, from the Assistant Director of du Pont's Foreign Relations Department (R. 416) to Carpenter (then a director and member of du Pont's Executive Committee, R. 2468) states that since Du Pont Cellophane acquired by the 1923 agreements "an exclusive license to all of the French patents and technical information and they have no rights to use our information in this country", we "feel that as a practical matter, it would be impossible for them to engage in the Cellophane business on the North American Continent" following termination on December 31, 1935, of their contract commitment (GX-1039, R. 398).

3257, 3258). Du Pont Cellophane, on its part, agreed to transfer to La Cellophane, in so far as areas outside North and Central America were concerned, all information concerning its later discoveries, inventions or developments relating to cellophane manufacture (*id.*, par. 4th, R. 3259). Each party agreed to furnish the foregoing "at any time" and "without charge" (*id.*, par. 5th, R. 3259).

The basic agreement of June 9, 1923, provided that La Cellophane's obligation to furnish all of its technology to Du Pont Cellophane was not to terminate on sale by the French interests of their Du Pont Cellophane stock (GX-1001, par. 12, R. 3253). Accordingly, when du Pont acquired this stock in 1929, La Cellophane and du Pont entered into a contract providing that La Cellophane's continuing obligations under the June 9, 1923, contract, "shall remain in full force and effect in favor of" Du Pont Cellophane's successor, a 100% du Pont subsidiary (GX-1003, R. 3264).

Du Pont thus acquired, as to North and Central America, exclusive rights to La Cellophane's future technology. In addition, the agreements contemplated that, within this area, du Pont might become entitled to the exclusive use of the technology of others. The December 26, 1923, contract provided that if La Cellophane should license any company to "manufacture and exploit" cellophane in an area other than France and North and Central America, such company might receive free of charge all technical information which du Pont fur-

nished to La Cellophane, on the condition that such company furnish to du Pont free of charge "corresponding rights and information, etc." (fng. 596, R. 227; GX-1002, par. 6th, R. 3295-3260). After La Cellophane had licensed a German company, Kalle & Co. Aktiengesellschaft ("Kalle") and British Cellophane, Ltd. ("BCL"), du Pont entered into agreements with them providing for direct interchange of technical information (fng. 596, R. 227). The agreements permitted Kalle and BCL to use du Pont's technical information "for manufacture and sale only in the countries specifically covered by their respective licenses" (fng. 602, R. 228).

The agreement with Kalle did not on its face impose territorial limitations (GX-1087, R. 3288-3291), but du Pont sent a letter to Du Pont Cellophane naming the thirteen countries in which Kalle had an "exclusive license", and stating that the Kalle agreement "for obvious reasons, does not include the territorial limits" (GX-1091, R. 3292). The BCL agreement, on the other hand, explicitly defined both du Pont's territory and BCL's (GX-1109, R. 3301). The former was stated to be North and Central America, the Philippine Islands, American possessions in the Pacific, and all the West Indies except islands owned by a European country *(ibid.)*. BCL's territory comprised the British Empire (including dominions and colonies), but did not include Egypt, mandated territories, or that portion of the British Empire "reserved" to du Pont *(ibid.)*.

In the exercise of its exclusive North American rights, du Pont licensed Canadian Industries, Ltd. ("CIL"), "under the patents and processes * * * received from La Cellophane," to manufacture and sell cellophane "exclusively for Canada", du Pont undertaking additionally to furnish "all technical assistance, plant construction, engineering service, etc." (fngs. 599-600, R. 228).[26] An oral agreement so providing was reached about the middle of 1931 and final written agreement was entered into in November 1933 (GX-1157, R. 3321-3322). For the grant of these rights, CIL agreed to pay du Pont 15% of the net profits of CIL's cellophane business for fifteen years (*id.*, R. 3322). Du Pont and CIL also entered into a technical interchange agreement with territorial limitations (Fngs. 601-602, R. 228).

On October 17, 1940, du Pont notified La Cellophane, Kalle, BCL and CIL that, "in the light of legal developments in this country," it construed its agreements with these companies as imposing no territorial restrictions upon the *sale* of cellophane, aside from those which may "lawfully" be based upon patents or trademarks (GX-1273-1276, R. 3323-3326; fngs. 604-605, R. 229). The notices did

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[26] CIL, which manufactures a wide range of chemical products in Canada, was formed in 1910 by du Pont and Imperial Chemical Industries, Ltd., of England, each of which has owned approximately 42% of CIL's stock (fng. 597, R. 227).

The successive tripartite agreements made by du Pont, CIL and Imperial Chemical Industries, and cartel arrangements growing out of them, have been held to impose restraints of trade prohibited by Section 1 of the Sherman Act. *United States* v. *Imperial Chemical Industries, Ltd.*, 100 F. Supp. 504, 594 (S.D. N.Y.).

not mention territorial restrictions upon *manufacture* by use of processes and technology conveyed (GX-1273-1276, *supra*). They stated affirmatively that du Pont did not intend to modify "any of the provisions of our agreements involving the exchange of technical information." *Ibid.*

Du Pont terminated its technical exchange agreements with La Cellophane and Kalle in 1941, when German authorities made it impossible to transmit information (fng. 608, R. 229). No reference was made to territorial restrictions on use of technology already transferred (GX-1279, 1280, R. 3328-3330).[27]

The du Pont-BCL technical exchange agreement was cancelled in 1948, *i. e.*, after institution of suit. (fng. 608, R. 229). In this instance, limitations on use of technology already exchanged (except patents) were expressly eliminated (DX-765 (not printed)). The court did not find that du Pont's similar agreement with CIL was ever cancelled or modified. It found that each of the agreements with the foreign companies, prior to cancellation, "was carried out in accordance with its terms" (fng. 601, R. 228).

The competition-limiting aspects of du Pont's

[27] The original du Pont-Kalle agreement (GX-1087, R. 3288-3291) expressly provided (par. 10, R. 3290-3291) that termination would not affect rights "in and to all inventions, experiences, information and discoveries transmitted" prior thereto, but that rights to use such technology theretofore conveyed "shall be and remain in full force in the same manner and with like effect as though this agreement had not been terminated."

patent cross-licensing agreement with Sylvania will be referred to later (*infra.*, pp. 35-37).

Sylvania's Entry into the Business in 1930, and Olin's Entry in 1951

About 1924 La Cellophane's chief engineer, together with one of its principal administrative officials, absconded with "blueprints and complete information" as to its process (fng. 615, R. 232). A Belgian concern,[28] referred to as SIDAC, was then set up to use this process in making cellophane, and it later organized Sylvania as an American affiliate (fngs. 615-616, R. 232). The absconding chief engineer of La Cellophane supervised the "planning, building and commencement of manufacture" of Sylvania's cellophane plant, and SIDAC supplied "all of the processes, engineering assistance, technical information and operating know-how used by Sylvania" (fng. 618, R. 233). Sylvania's initial production was in 1930 (fng. 337, R. 165).

Sylvania's entry into the cellophane business encroached upon du Pont's prior 100% monopoly of domestic production. Likewise, SIDAC's entry into the business in Belgium, and its establishment of English and Italian affiliates (fng. 616, R. 232), encroached upon La Cellophane's monopoly of production and sales (except for the inferior Wolff process) outside of North and Central America. After La Cellophane had sued SIDAC in Belgium for theft of its secret processes and patent infringement, it accepted in settlement of the litigation

[28] Societe Industrielle de La Cellulose.

approximately one-third of SIDAC's stock (fng. 619, R. 233). This stock acquisition gave La Cellophane an indirect interest in Sylvania, an American producer, in breach of La Cellophane's contract obligation to du Pont not to engage directly or indirectly in the cellophane business in North America (fng. 620, R. 233; *supra*, pp. 20-21).

Negotiations as to means for compensating du Pont for this breach of contract resulted in an agreement ratified by du Pont in May 1930 (fng. 621, R. 234). The agreement provided that La Cellophane might retain its SIDAC stock, and that du Pont should have "equal rights" with La Cellophane in South America and Japan (and in China "provided La Cellophane obtains rights" therein), and should have the option to "participate upon the same terms and conditions as La Cellophane" in any undertaking to build plants in South America or Japan (*ibid.*; GX-1015, R. 3269).[29]

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[29] The agreement as ratified generally corresponds with the agreement reached by the negotiators in March 1930, but the earlier form of agreement contains significant additional provisions (GX-1013; R. 3266-3268). One was that "moisture proof cellophane material shall always be sold at an advance price over regular cellophane" (*id.*, R. 3267). Another was (*id.*, R. 3266-3267):

> In the event Wolff comes within the accord of the arrangement outlined in your memorandum of February 11-12 all of the companies are to enjoy their own territory free from the competition of the others, the remainder of the world to be divided according to the quotas of past experience, endeavoring to stabilize prices therein. Of that portion of this so-called "world-territory", which is determined for La Cellophane in South America, China and Japan 50% thereof to be allotted to Du Pont

Olin, the only other newcomer to the industry, began making cellophane in June 1951 (fng. 680, R. 248). In November 1949 du Pont "licensed" Olin to manufacture cellophane (fngs. 661 (R. 243), 664 (R. 245)), a step resulting directly from the filing of the present suit. In March 1948 du Pont's executive committee adopted a resolution directing its Development Department to inquire into the possibility of interesting one or more concerns in manufacture of cellophane, upon the basis that du Pont, for a moderate fee, furnish its "know-how" and patents to a new producer and assist in the designing of a new plant (GX-594, R. 3889). Pursuant to this direction, the Development Department prepared a memorandum of "Preliminary Information" which was submitted to interested prospects (*id.*, R. 3890). The opening sentence of this memorandum reads (*id.*, R. 3893):

> To help to meet the U. S. need for more cellophane, and to reduce the hazard of being judged to have a monopoly of the U. S. cellophane business, du Pont is interested in having a new competitor established on a substantial scale.

The major provisions of the license contract between du Pont and Olin (DX-974, R. 5567-5582) are as follows:[30]

Cellophane Co., which shall sell at prices similar to the others of the group. Details as to agents, methods of distribution, etc. to be worked out to our mutual satisfaction.

[30] Finding 665 (R. 245-246) summarizes certain aspects of the contract.

Du Pont shall impart to Olin all "technical information and know-how" used by du Pont in its cellophane manufacturing operations, as well as information so used within four years after completion of Olin's initial manufacturing plant (*id.*, art. II, R. 5568). Olin shall keep all information received from du Pont "confidential" for ten years from the date of receipt (*id.*, art. IV, R. 5574). Olin is granted a non-exclusive, non-assignable license to make and sell cellophane under du Pont's present patents and those applied for within six years of the agreement (*id.*, art. V, R. 5574). Du Pont shall design and supervise the construction of a cellophane plant for Olin having a rated annual capacity of 33,700,000 pounds of cellophane; and upon request from Olin within five years of the contract, du Pont shall perform like service as to an additional plant of the same capacity (*id.*, art. III, R. 5571-5573). Du Pont shall be paid approximately $1,337,000 for its "know-how", patents, and work performed with respect to Olin's initial plant, plus 4% on account of services rendered in connection with any second plant constructed (*id.*, art. VII, R. 5577-5578).[31]

Olin, which thus came into the cellophane business when the door was opened, had long been investigating the feasibility of undertaking manufacture of cellophane (R. 2733). Its officials had

[31] In addition to the payment totalling $1,000,000 referred to in finding 605, Olin was required to pay du Pont $10,000 for each 1,000,000 pounds of the installed annual production capacity of the plant (*id.*, art. VII(a)), which would amount to $337,000 on the plant's contemplated annual production capacity of 33,700,000 pounds.

conferred with representatives of Wolff in 1929, 1934, and 1936, and in the latter year had inspected Wolff's plant in Germany (R. 2733-2734). After Olin concluded that there were obstacles to successful use of the Wolff process in this country, it spent about $1,000,000 (including the cost of building a pilot plant) in attempting to develop its own process for making cellophane. This attempt was finally abandoned in 1944 because the product made proved unsatisfactory (R. 2735-2736).[32]

Extent of Sylvania's Competition

In the first five years of Sylvania's cellophane production (1930-1934), it had less than 20% of the total (GX-531a, R. 3876). Thereafter, its share of total production remained remarkably stable, close to 25% in every year (*ibid.*).

Sylvania did not compete with du Pont in price—its price lists were at all times identical with du Pont's (fng. 588, R. 225).[33] In fact, when du Pont made a price reduction, Sylvania predated its own price list to the effective date of du Pont's (fng. 587; R. 225). There was no agreement between the two companies as to the prices either would charge (fng. 584, R. 225). The identity in price lists was "due to Sylvania's desire to obtain as high a price for its cellophane as it could and its

[32] The references in the above paragraph are to the testimony of Olin's Vice President for Research and Development, called as a witness for du Pont (R. 2731).

[33] The court found that there is "no proof" that prices were "identical" for sales to jobbers, agents and for export (fng. 591, R. 226).

inability to sell its product at higher prices in competition with du Pont cellophane" (fng. 588). [Emphasis added.] And this inability was found to exist notwithstanding the fact that since World War II cellophane producers "have been unable to satisfy the demand except for a period during 1949 and a period commencing January 1, 1952" (fng. 349, R. 168).

In short, the price of cellophane has been the price established by du Pont.[34]

Not only did Sylvania offer no price competition, but its competition in other respects was what might be termed marginal. Compared with Sylvania, du Pont's cellophane has been superior in quality (fngs. 309 (R. 157), 316 (R. 159)), its "manufacturing efficiency" greater (fng. 319, R. 160),[35] its "sales and technical services to customers" far superior (fngs. 328, 330; R. 162-163), and it has offered customers a wider variety of types of cellophane (fng. 311, R. 158).

Related to Sylvania's potentiality as a competitor is the wide gulf between the resources of the two companies. Du Pont is the largest chemical company in the country (R. 24). The following shows the total assets of du Pont and Sylvania at four year intervals beginning with 1935 (the first year for which Sylvania's assets are shown), and

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[34] Findings 124 (R. 105), 586-588 (R. 225), 712 (R. 257).

[35] Sylvania "casts film at slower speeds, has greater waste, less efficient solvent recovery, requires more employees per casting machine, and produces less poundage per casting machine" (fng. 319, R. 160).

the percentage relation of Sylvania to du Pont on a total asset basis: [36]

	du Pont	Sylvania	Sylvania's % of du Pont
1935	$ 666,728,999	$ 8,912,542	1.3
1939	857,618,123	11,647,838	1.3
1943	903,578,466	14,037,959	1.5
1947	1,090,792,667	201,188,322	18.4 [37]

Apart from the disparity in resources, du Pont had the advantage, at least until late in 1940, of exclusive access to the latest discoveries and technical developments of the principal foreign cellophane producers (*supra*, pp. 21-23). In addition, du Pont's patent licensing agreement with Sylvania potentially limited the latter's production and sale of moistureproof cellophane (*infra*, pp. 35-37).

Du Pont's Patents and Patent Policies

Du Pont found that the patents which it acquired from La Cellophane in 1923 were not of much value.[38] Du Pont considered these patents insufficient to give it a "practical monopoly" of cel-

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[36] Assets are as of December 31. Sylvania figures are from DX-538 (R. 5051), giving Moody's Industrial Manuals as the source. Du Pont's figures are from the same source—for 1935 (1938 Moody's pp. 1948-9), 1939 (1940 Moody's, pp. 3218-9), 1943 (1944 Moody's pp. 1807-8), 1947 (1948 Moody's, pp. 2717-8).

[37] The big increase in Sylvania's 1947 assets results from the fact that it was acquired by American Viscose Corporation in 1946.

[38] Du Pont's counsel conceded that these patents "were of no particular value" (R. 452).

The patents are to be distinguished from "the essential secret process and technical information" supplied by La Cellophane (fng. 614, R. 232).

lophane manufacture and doubted that it could "maintain a monopoly" on the strength of the La Cellophane patents (GX-392, R. 3545-3546). Later, du Pont acquired rights under 368 patents relating to cellophane, of which it used 93 in its commercial operations (fngs. 470, 472; R. 194, 195). Only three infringement actions were brought on the 368 cellophane patents, and two of the three suits were settled without adjudication (fng. 484, R. 197). The Patent Office also declared interference between certain of du Pont's patent applications relating to cellophane and patent applications of others, but du Pont settled by agreement 14 of the 15 interference proceedings (fngs. 515 (R. 205), 521-532, (R. 206-210)).

At the outset of its cellophane operations, du Pont became aware that cellophane gave inadequate moistureproof protection for the packaging of such products as hard candies and bakery goods (fng. 99, R. 98). In September 1924 Du Pont Cellophane's chemical director recommended to its production manager that research be started on means of increasing the moisture-resistance of cellophane, but not "unless we were prepared to spend $5,000 or $10,000 without stopping" (DX-393, R. 4868). The recommendation was approved and research started in 1924 (DX-394, R. 4870; fng. 99, R. 98). "This work was successful and experimental production of moistureproof cellophane began by 1926" (fng. 99, R. 98). In 1927 du Pont "entered large scale production" of moistureproof cellophane (GX-2467, R. 3350). The application

for the product patent on moistureproof cellophane, which was issued to du Pont on November 26, 1929 (fng. 99, R. 98), was filed on January 3, 1927.[39] In this connection, it is significant that Du Pont Cellophane's "technical activities expense" for the years 1924, 1925, and 1926 totalled only $41,187 (DX-387, R. 4858).[40]

In February 1931 Sylvania advised du Pont that it planned to manufacture moistureproof cellophane, and Sylvania was informed that du Pont's product patent (U. S. Patent No. 1,737,187) would be enforced (fng. 535, R. 211). Later in the year Sylvania rejected du Pont's offer to license Sylvania under du Pont's present and future moistureproof patents, with Sylvania limited to 10% of total moistureproof sales (*ibid.*). In October 1931 four patents covering coating compositions or processes which du Pont used in making moistureproof cellophane were issued to du Pont (fng. 332, R. 163). Three months later du Pont filed suit charging Sylvania with infringing du Pont's five moistureproof patents, but on April 26, 1933, prior to trial, the parties entered into a cross-licensing agreement and the infringement suit was withdrawn (fngs. 536, 538; R. 211-212).

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[39] U. S. Patent No. 1,737,187. The district court, with agreement of both parties, ruled that it would take judicial notice of this and other du Pont patents issued by the Patent Office (R. 957-958).

[40] By way of contrast, du Pont's technical activities expense applicable to cellophane was over $1,000,000 in each of the years 1942-1946, inclusive, and over $2,000,000 in each of the years 1947-1950, inclusive (*ibid.*).

The following are the principal provisions of the 1923 cross-licensing agreement (GX-2487, R. 3383-3408):[41]

Sylvania was granted a non-exclusive license under du Pont's five present moistureproof patents (*id.*, par. 1, R. 3384), the validity of which Sylvania "expressly" acknowledged (*id.*, par. 22; R. 3400-3401). Du Pont agreed not to license these patents to a third person unless Sylvania shall consent thereto in writing (*id.*, par. 17, R. 3398). Each party agreed to grant the other, at the latter's election, a non-exclusive license on any patent relating to moistureproof cellophane acquired prior to October 6, 1948 (*id.*, par. 2-3, R. 3384-3385), and agreed that a patent so licensed would not be licensed to a third party "unless the parties hereto shall first agree in writing to the terms of the license to be granted to said third party" (*id.*, par. 17, R. 3398). The licenses under du Pont's five existing patents ran to October 6, 1948, and licenses under future-acquired patents which either party had commercially used prior to that date were to continue during "the life of such patents" (*id.*, par. 5, R. 3386). All licenses granted or to be granted were non-assignable (*id.*, par. 16, R. 3397).

For use of du Pont's five existing patents, the royalty payable by Sylvania was 2% of net selling price (*id.*, par. 6, R. 3386). If Sylvania used any future du Pont patent licensed to it under the

[41] The agreement is summarized in finding 545 (R. 213-216), but we shall refer to the agreement itself (GX-2487).

agreement, and if such patent covered processes different from those claimed in du Pont's five existing moistureproof patents, Sylvania was to pay an additional 2% royalty (*id.*, par. 8, R. 3387). And if du Pont utilized any Sylvania patent licensed to it under the agreement and if the patent covered processes different from those covered by du Pont's existing moistureproof patents, du Pont was required to pay a 2% royalty on its sales of the licensed product (*id.*, par. 9, R. 3389).

If in any year Sylvania's moistureproof sales exceeded a specified percentage of du Pont's and Sylvania's combined moistureproof sales, Sylvania was required to pay as to such excess an *additional* royalty of 30% of net selling price or 20¢ per pound, whichever was greater (*id.*, par. 11, R. 3391).[42] Sylvania had to pay this prohibitive royalty if its 1933 sales exceeded 20% of combined sales, and its sales quota rose 1% per year for nine years, after which the quota remained at 29% (*ibid.*). Although the 1933 license agreement was amended in 1938, no change was made in the prohibitive royalty payable by Sylvania if it exceeded its specified sales quota (fng. 579, R. 223; GX-2488, R. 3409-3411).

Sylvania's moistureproof sales came relatively

[42] In April 1933 the price of moistureproof cellophane was 58¢ per pound (GX-1, R. 3070), so that the 20¢ a pound additional royalty was 39.5% of sales price. By December 1935 the price had declined to 46¢ a pound, and by October 1939 to 41¢ (*ibid.*), so that after October 1939 the additional royalty, if Sylvania exceeded its sales quota, was almost 50% of sales price.

close to its quota in 1935, 1936, and 1938, but it never exceeded its quota (fng. 566, R. 220). The court found that the 1933 agreement never affected Sylvania's plans for "expansion of production" (fng. 568, R. 221).

The 1933 agreement was terminated on January 1, 1945, when the parties entered into a new agreement under which the patents licensed were specified, non-exclusive licenses were granted (with a most-favored-nations provision), and Sylvania's maximum royalty was 2% of net selling price (fngs. 580-581, R. 223-224).

Under the cross-licensing provisions of the agreement, du Pont took licenses under nine Sylvania patents, but du Pont did not use in its operations any of the patents thus licensed to it (fng. 558, R. 218).[43] Sylvania took licenses under, and utilized, a considerable number of after-acquired du Pont patents (fng. 561, R. 218).

Du Pont's Prices and Pricing Policy

The two outstanding facts in the present connection are (1) that the market price of cellophane has always been what du Pont chose to make it, and (2) that du Pont pursued an enlightened business policy of reducing price (if consistent with securing high earnings) as a means of expanding sales volume and gross receipts.

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[43] The taking of a license permitted du Pont to foreclose use of the licensed patent by any third person (*supra*, p. 35), and doing so cost du Pont nothing since it was required to pay a royalty to Sylvania only if it utilized the licensed patent (*supra*, p. 36).

Du Pont, in fixing the price of cellophane, was not controlled or even influenced by the prices or price action of its one competitor—Sylvania always sold at du Pont's prices and never initiated a price reduction (fngs. 585, 587-588, R. 225; *supra*, p. 30).

The cellophane prices which du Pont fixed were not dictated by the prices of "other flexible packaging materials." Of the materials so labelled, *i.e.*, products which are used primarily for pre-packaging retail packages (*infra*, p. 44), glassine and waxed paper are sold in much the greatest volume.[44] DX-994 (R. 5630) shows that throughout the period covered by the complaint (1923-1947) there was little variation in their price. The price of glassine at the close of 1947 was almost exactly the same as its price in 1924 (*ibid.*).[45] In sharp contrast, the price of plain cellophane fell 87% during this period, from $2.65 per pound to 33¢ (fng. 124, R. 105).

The complete lack of relation between changes in cellophane prices and changes in glassine and waxed paper prices is shown by those made during the period 1924-1932, inclusive, as well as by those occurring during the period 1933-1946, inclusive. During the first period the price of glassine remained stationary, but the price of plain cellophane fell from $2.65 per pound to 42¢ or 84% (GX-4, R. 3070; DX-994). During the second

[44] Findings 39 (R. 72), 133 (R. 107), 280 (R. 148-149); opinion (R. 289-290, 298, 300).

[45] DX-994 does not show the price of waxed paper prior to 1933.

period the price of both glassine and waxed paper advanced appreciably; the price of cellophane, on the other hand, declined, dropping from 42c per pound to 33c, or 21% (*ibid.*).

The contrasting relationship between the price of cellophane and the price of glassine at different representative dates is striking. In January 1929 the price of moistureproof cellophane was seven times that of glassine; in June 1934, four times; in January 1949, about double (fng. 136, R. 108).[46]

Du Pont's pricing policy as to cellophane and the reasons for it were outlined by Yerkes, Du Pont Cellophane's president, as early as December 1924. He advised du Pont's board of directors that he favored lowering the price of cellophane; that a substantial price reduction "will undoubtedly increase sales and widen distribution"; and that du Pont's current price was "too high based purely on manufacturing cost, and too high in comparison with other wrapping papers on the market" (DX-337, R. 4784). In the following year he advised the board that "each price reduction we make opens up new opportunities in wrapping lower priced goods and small units" (DX-339, R. 4787).

Du Pont reduced prices to expand the market for cellophane, and to enable it to be sold for uses not within its reach at higher prices (fngs. 142-143, R. 109). In determining whether to make a price

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[46] To the extent that the price of waxed paper is shown, there has been like contrast in the relationship, at different periods, between its price and the price of cellophane (fng. 136; DX-994).

reduction, du Pont considered the relationship of the proposed price to manufacturing costs, the additional sales volume which it might win, and its effect on du Pont's return on its investment (fng. 143).

Although du Pont made reductions in the price of cellophane for the purpose of promoting sales to persons who, because of cost considerations, were using or were likely to use other less satisfactory packaging materials, the reductions were not made in order to "meet" the price of any other material. Cellophane has always been in an entirely different price category than glassine and waxed paper,[47] and thus has never been sold on a competitive price basis. Cellophane, as a higher priced product, has been sold on the basis that its composite qualities or special characteristics make it the product best adapted to and serviceable for particular packaging purposes (fngs. 152 (R. 112), 159-163 (R. 114-116)). While the price differential between cellophane and a product such as glassine is frequently a factor in purchaser choice (fngs. 137-141, R. 108-109), this is only one among many factors which affect or determine choice (fngs. 139-141 (R. 108-109), 159-163 (R. 114-116)). The assistant director for sales of du Pont's Film Department (under which its cellophane business came) aptly stated the situation and du Pont's point of view as follows (GX-589, R. 3885):

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[47] Findings 130 (R. 106-107), 133 (R. 107), 136 (R. 108); DX-994, R. 5630).

> The main competitive materials * * * against which Cellophane competes are waxed paper, glassine, grease-proof and vegetable parchment papers, all of which are lower in price than Cellophane. *We do not meet this price competition.* Rather, we compete with these materials on the basis of establishing the value of our own as a factor in better packaging and cheaper distribution costs and classify as our logical markets those fields where the properties of Cellophane in relationship to its price can do a better job for the user. [Emphasis added.]

Du Pont Research

In 1924 cellophane was brittle, not available in the roll form essential for machine-packaging operations, and not moistureproof (fng. 80, R. 93). By research, du Pont improved the quality of cellophane, reduced cost of production, and developed new types of cellophane tailored for particular end uses.[48] For the period 1924-1950, inclusive, du Pont's cellophane "technical activities expense" totalled $24,361,065 (fng. 83, R. 94). In relevant periods, such expense totalled in round figures: 1924-1930, $605,000; 1931-1940, $7,011,000; 1941-1950, $16,745,000 (DX-387, R. 4858).

As to the problem of cellophane suitable for sale in roll form, du Pont was able to offer cellophane

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[48] Findings 83 (R. 93), 89 (R. 95), 101-103 (R. 99), 107-109 (R. 100-101).

for sale in rolls as early as 1925, and by 1930 about half of its production was sold in this form (fng. 93, R. 97). As to the problem of packaging machinery capable of handling cellophane, du Pont promoted the development and use of such machinery, assisted the manufacturers, and furnished technical service to customers who encountered difficulty in using the machinery for cellophane (fng. 91, R. 96).

We have previously described du Pont's development of moistureproof cellophane (*supra*, pp. 33-34). Subsequent to the initial "invention" of this type of cellophane, du Pont developed various related improvements, including adhesives, coatings which could be sealed by heat, means of anchoring the coating, and coatings with special characteristics (fngs. 101 (R. 99), 104-106 (R. 99-100)).

The District Court's Concept of "Other Flexible Packaging Materials"

Only a small part of du Pont's cellophane sales are for other than packaging purposes (fng. 38, R. 72), so that commerce in cellophane primarily consists in its sale as a packaging material. The use of "flexible packaging materials" has been growing since 1923 (fng. 42, R. 73). Among factors contributing to this growth have been development of self-service retail stores offering packaging units, increased emphasis upon health and other protective aspects of packaging, and development of new merchandising techniques (*ibid.*).

Most of the increase since the end of World War II has been in consumer-size packages (fng. 43, R. 73).

We have previously noted that the district court ruled that du Pont's possession of monopoly power is to be determined not with reference to trade and commerce in cellophane, but in terms of "the market for flexible packaging materials," and that the court failed to define this phrase (*supra*, pp. 7-8). However, there are findings showing the products which were considered by the court to be "flexible packaging materials".

Finding 59 states that the table embodied therein compares the physical properties of cellophane and "other flexible packaging materials" (R. 78). The products listed in the table are cellophane, certain papers (sulphite paper, waxed paper, glassine, vegetable parchment paper, greaseproof paper), aluminum foil, and certain plastic films (cellulose acetate, pliofilm, polyethylene, Saran, Cry-O-Rap). Finding 62 describes the same products as being "other flexible packaging materials" sold to customers who buy du Pont's cellophane (R. 80-82). Finding 280 states that in 1949 du Pont's cellophane production was "less than 20% of flexible packaging materials consumed in the United States" in that year, and gives production-import figures for the same products (R. 148-149). Finding 130 states: "1949 average wholesale prices of flexible packaging materials in the United States

were" as listed therein, and prices for the same products are then listed (R. 106-107).[49]

While the findings thus identify the products labelled "flexible packaging materials", they do not disclose what the label means or why the designated products, and not others, come within it. Explanation is provided by the testimony of du Pont's witness Bricker, who prepared the exhibits on which findings 130 and 280, respectively, rest, namely DX-995 (R. 5634) and DX-982 (R. 5597). The products selected for inclusion in these exhibits were those which the witness considered to be "the principal flexible packaging materials used primarily for the pre-packaging of retail pack-

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[49] All designations in finding 130 are taken verbatim from DX-995 (R. 5634), except for an error in each of the last two designations for which prices are given. These errors, which were likewise made in du Pont's proposed finding 130, make the designations ambiguous and misleading.

The first erroneous designation reads: "Plain waxed sulphite 25# self-sealing", and the error consists in substituting "25#" for "30#". As the designation appears in DX-995, it corresponds to what is designated as "30-LB. PLAIN WAXED PAPER" in DX-994 (R. 5630), which exhibit charts the prices of "the same specific grades of materials" as those contained in DX-995, and is based on the same information as DX-995 (R. 5634). Waxed paper therefore is the product covered by the designation in question.

The second erroneous designation reads: "Plain waxed sulphite 25# coated opaque". DX-995 uses the word "waxing", not "waxed." The corresponding designation in DX-994 is "25-LB. WAXING-COATED OPAQUE WRAPPING PAPER". "Waxing sulphite" or "waxing-coated opaque wrapping paper" is sulphite paper, which is used as "waxing stock" for waxed paper (fng. 62, R. 81). [Sulphite paper which is to be so used is sold to converters who wax it and then sell it as opaque waxed paper (R. 1706).]

ages" (R. 1678). Other products used for such pre-packaging—Kraft, tissue paper, butcher's paper, among others,—were not included in the exhibits upon the ground that the "great bulk" of their use was for purposes other than prepackaging of retail packages (R. 1679).[50] Accordingly, DX-982 and DX-995, as well as DX-994 (R. 5630), is each denominated in its heading as "*selected* flexible packaging materials" [Emphasis added], but the qualifying word "selected" was omitted in findings 130 and 280, just as it was omitted from du Pont's proposed findings 130 and 280.

The products which the court denominated "flexible packaging materials" are widely disparate in physical properties of significance to packaging capability (fng. 59, R. 78-79). As between moisture-proof cellophane and sulphite paper, for example, there is for the most part antithesis, not similarity. The products differ in the following major respects (*ibid.*):

	Moistureproof Cellophane	Sulphite Paper
Clarity	Highly transparent	Opaque
Heat Sealing	Yes (if coated)	No
Tear Strength	Low	High
Bursting Strength	High	Medium
Moisture Permeability	Low–Medium	Very high
Permeability to Gases	Very low	High
Resistance to Grease and Oils	Excellent	None

Even the general description of sulphite paper in finding 62 (R. 81) shows that its uses and function as a wrapping material are almost foreign to

[50] The classification "flexible packaging materials" has no counterpart in the classifications used by the Bureau of the Census (R. 1678).

the use of technology already exchanged. Cancellation of the du Pont-BCL technical interchange agreement (including all restrictions on the use of technology already exchanged) was effectuated in 1948, *i.e.*, after filing of this suit. No modifications have been made in the du Pont-CIL agrement.

Objectionable features of the du Pont-Sylvania patent agreement were eliminated in 1945 by a rewriting of that contract.

Apart from any question as to the extent that the agreements were purged, the fact remains that they were fully operative during an extended period of years when du Pont's dominant position was established and expanded, and that the changes took place only when "legal developments" were far more to be apprehended than the prospect of any serious competition from other producers. In these circumstances, the present viability of the agreements is beside the point. Those who have "unlawfully built their empires" are not entitled to "preserve them intact," *Schine Chain Theatres* v. *United States*, 334 U.S. 110, 128. The crucial issue is whether monopoly and the "continually operating force" which it carries with it (*United States* v. *Standard Oil Co.*, 221 U.S. 1, 78) were achieved by unlawful and exclusionary means. If so, the defendant cannot come "within the exception established in favor of those who do not seek, but cannot avoid, the control of a market." *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 431 (C.A. 2).

3. In view of the illegality of its basic trade allocation and technical interchange agreements, it is

not open to du Pont to defend the charge of monopolization on the ground that its research, technical skills and business efficiency have been of a high order and have substantially contributed to its success as a manufacturer and seller of cellophane. Advance of the art, increase in production and decline in price of product do not suffice to show that "the public interest has not been abused," for "the suppression of competition in international trade is in and of itself a public injury." *National Lead, supra*, 63 F. Supp. at 525.

The district court placed special emphasis on du Pont's moistureproof patents, issued in 1929 and 1931, holding that they constituted a defense. This appears to rest largely, however, on the court's fundamental assumption that the agreements upon which du Pont's monopoly was originally founded gave it a "legitimate head start."

In our view, as argued above, du Pont's dominant power was illegally established. It is important, moreover, from the standpoint of the "moistureproof" defense, that it is La Cellophane's basic process which is fundamental to the manufacture of all cellophane, however it is subsequently treated or coated; and that the improvement of cellophane, by means of a moistureproof coating, was a relatively simple and inexpensive development, once the exclusive rights to the basic process had been obtained. A company which has acquired unlawful monopoly power cannot meet the charge of antitrust violation by showing that, in the course of time, it has improved (or, more accurately, improved for purposes of many users) the product

monopolized, and has obtained patents on the basis of the improvement. This is but a particular application of the general proposition that a company which would justify the exercise of monopoly power must show that its position was achieved solely by permissible means, and, in that sense, thrust upon it.

There is a further defect in the "moistureproof" defense. The moistureproof process was subject to the technical interchange agreements and the attendant territorial restrictions. By agreement, it was covered into the international pool. The moistureproof patents were also the special subject of the restrictive du Pont-Sylvania agreement. Since the patents thus became part and parcel of illegal and exclusionary agreements, they are, themselves, tainted. The defense is accordingly foreclosed. *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U. S. 661, 670.

ARGUMENT

I

The District Court Erred in Holding That, Because Du Pont Did Not Have Monopoly Power Over Trade in "Flexible Packaging Materials", It Did Not Monopolize Trade in Cellophane

A. *The Manufacture and Sale of Cellophane Constitutes a "Part" of Interstate Commerce Within the Meaning of Section 2 of the Sherman Act*

Section 2 prohibits monopolization of "any part of the trade or commerce among the several

States." The words "any part" are not defined, but more than forty years ago they were held to have "both a geographical and a distributive significance," and to apply to "any portion of the United States and any one of the classes of things forming a part of interstate or foreign commerce." *United States* v. *Standard Oil Co.*, 221 U. S. 1, 61. This interpretation was expressly reaffirmed in *Indiana Farmer's Guide Publishing Co.* v. *Prairie Farmer Publishing Co.*, 293 U. S. 268, 279, and again in *United States* v. *Yellow Cab Co.*, 332 U. S. 218, 226.

The instant case presents no question of geographic subdivision of trade. At most, it raises the question of whether commerce in cellophane is a "part" of interstate trade and commerce. This question, we believe, answers itself. On the court's findings, cellophane is a distinctive product, bought and sold as such,[54] and its 1947 dollar sales were in excess of $70,000,000 (fng. 337, R. 165). That this trade is a "part" of interstate commerce is made crystal clear by the decisions holding Section 2 applicable to monopolization of commerce in products or services constituting a narrower segment of commerce than cellophane. The following products or services, among others, have been held to be subject to the prohibitions of Section 2:

Parchment paper[55] (*Story Parchment Co.* v.

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[54] See, generally, findings 150-278 (R. 111-148).

[55] The court below included parchment paper among the products which it designated "flexible packaging materials" (fng. 59, R. 78-79).

Paterson Parchment Paper Co., 282 U. S. 555); advertising in "farm" papers and journals, as distinguished from advertising in papers and journals appealing to the general public (*Indiana Farmer's Guide* case, *supra*); women's dresses of original design, as distinguished from other women's dresses (*Fashion Originators Guild* v. *Federal Trade Commission*, 312 U. S. 457, 465-466); "virgin" aluminum as distinguished from "secondary" (*United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 424 (C. A. 2)) [56]; the news service of a particular news agency (*United States* v. *Associated Press*, 52 F. Supp. 362, 371-372 (S. D. N. Y.), as affirmed, 326 U. S. 1, 17-18); motion pictures licensed for first-run exhibition, as distinguished from those licensed for subsequent runs (*United States* v. *Paramount Pictures, Inc.*, 334 U. S. 131, 172-173); newspaper advertising, as distinguished from other mass advertising media (*Times-Picayune Publishing Co.* v. *United States*, 345 U. S. 594); sea green slate having "a quality and a demand peculiar to itself," as distinguished from black slate (*O'Halloran* v. *American Sea Green Slate Co.*, 207 Fed. 187, 193-194 (N.D. N.Y.), reversed on other grounds, 229 Fed. 77 (C.A. 2)); starch and syrup made from corn, as distinguished from starch and syrup made from other raw materials (*United States* v. *Corn Products Refining Co.*,

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[56] The court observed that "for most purposes it ['secondary'] competes upon a substantial equality with 'virgin' " (*ibid.*).

234 Fed. 964, 974-977 (S. D. N. Y.), appeal dismissed on appellants' motion, 249 U. S. 621).

B. *Du Pont's Lack of Monopoly Power over Trade in "Flexible Packaging Materials" Does Not Negative its Possession of Monopoly Power over Trade in Cellophane*

1. *The district court held that the Government's case failed because of the existence of a free market in substitute products*

While the court did not in terms declare that commerce in cellophane is not a "part" of interstate commerce under Section 2 (see R. 287), it concluded (which amounts to the same thing) that, absent domination of the entire "flexible packaging materials market", there could be no unlawful monopolization of cellophane.

One of the two "master factual questions" which the court said were presented was whether du Pont had power to raise the price of cellophane "without regard to competitive forces" (R. 286). The court stated that, to establish monopolization, the Government had to show a control over prices and production "which permits disregard for competitive factors" (*ibid.*). The court declared further that the facts demonstrate that du Pont's cellophane "is sold under such intense competitive conditions acquisition of market control or monopoly power is a practical impossibility" (R. 288).

The competitive "forces", "factors", and "conditions" to which the court referred were those

deemed to arise because of "the intense competition existing in the flexible packaging markets" .(R. 289). The court said (R. 292): "Shifts of business have been proved. It has been proved in every major end use; du Pont cellophane has lost and gained actual paying customers, as a result of cost and quality judgments of these customers." The court concluded: "Character of the flexible packaging markets, measured by proof, establish [*sic*] du Pont as a manufacturer of cellophane does not have market control or monopoly power" (R. 300).

In short, the court held that commerce in cellophane was not monopolized because there was a free market in possible substitutes therefor. The holding is epitomized in finding 37 (R. 72): "The relevant market for determining the extent of du Pont's market control is the market for flexible packaging materials (judicial notice after examination and observation)."

In the remainder of this Point we show that this holding rests on a misinterpretation of the Act. We also show that the court's findings of specific facts establish that du Pont's lack of control over the so-called "flexible packaging materials market" does not negate its possession of a degree of control and dominion over trade in cellophane constituting a prohibited monopolization of such trade.

2. *A charge of monopolizing commerce in a product is not defeated by showing a free market in substitute products, at least if the substitutes are not both substantially fungible and like priced*

We later undertake to establish that du Pont had both power to exclude others from manufacture and sale of cellophane (*infra*, pp. 93-105) and power to fix and control the price of cellophane (*infra*, pp. 105-114). The question now taken up is whether du Pont, although having powers which are the principal criteria of monopolization, did not monopolize because it did not control trade in substitutes for cellophane.

In determining the application of the prohibition against monopolizing, a primary consideration is that "substitutes are available for almost all commodities". *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 426 (C. A. 2). This Court has recently said: "For every product, substitutes exist. But a relevant market cannot meaningfully encompass that infinite range." *Times-Picayune Publishing Co.* v. *United States*, 345 U. S. 594, n. 31, at p. 612. Furthermore, there are not only substitutes, but substitutes for substitutes.[57] The very fact that substitutes offer a choice means that,

[57] Du Pont in its Offer of Proof No. 1 stated (DX-998, R. 5636, 5648):

> Many other materials are used in substantial volume to package goods. Some, like cellophane, are flexible; others, like rigid plastics, glass jars, tin cans, and paper board, are not. There is considerable competition between the flexible and non-flexible packaging materials.

to the extent of this choice, they compete with the monopolized product. If this competition negatives illegal monopolization, the prohibitions of Section 2 are an empty gesture. The section is "all dressed up with nowhere to go."

Plainly, a showing of competition by substitutes does not, of itself, negative the monopolization prohibited by Section 2. Nor did the district court avowedly adopt an interpretation of the section which would emasculate it. But the court, in holding that the competition of so-called "other flexible packaging materials" furnishes the test for determining whether du Pont monopolized cellophane trade, and in its multitude of related findings, never faced, or at least never articulated, the real issue arising under the statute, namely, the circumstances, if any, under which competition of substitutes will negative possession of monopoly power.

The very words of the Act, monopolizing "any part" of the trade or commerce of the United States, place a heavy burden upon the company which would claim that monopolization of a product is to be deemed excused because of the existence of a free market in substitutes. The consequence is that decisions dealing with Section 2 have, for the most part, completely ignored the factor of competition of substitute products. The motion picture litigation provides an illuminating example. Motion pictures exhibited first-run are in competition with the subsequent-run showing of the same pictures. *Interstate Circuit, Inc.* v. *United States*,

306 U. S. 208, 219, 224. But, in the *Paramount* case, *supra*, this Court remanded the proceedings to the district court to determine whether there was a monopoly on the part of the five major distributors "in the *first-run* field for the entire country, in the *first-run* field in the 92 largest cities of the country, or in the *first-run* field in separate localities." 334 U. S. at 172. This Court plainly indicated that such monopolization was to be determined solely on the basis of the defendants' control over first-run exhibitions; this was the basis of the finding of monopolization made on remand (85 F. Supp. 881, 894); and this Court affirmed the judgment which was entered predicated on such finding (339 U. S. 974).

Yet, on defendant's theory, a monopolist of motion picture exhibition apparently could avoid Sherman Act consequences by showing that motion pictures compete in substantial measure with legitimate plays, television, radio, sporting events and other forms of entertainment. Or, to take another example, a monopolist of oil burners could show, as a defense, that oil burners compete for the consumer's dollar with coal and gas furnaces.

In cases involving Section 1 violations, such as price-fixing, it has never been suggested, so far as we are aware, that it was a defense to show that purchasers of the price-fixed commodity might be able to buy a substitute product in a free market. It is difficult to see under what reasoning a different rule should apply where the power to control the price of a particular commodity is vested in a

single company rather than a group of companies acting in concert. In the *Aluminum* case Judge Learned Hand, in discussing the relationship of Sections 1 and 2, said that all contracts fixing prices are "unconditionally prohibited" but "a monopoly necessarily involves an equal, or even greater, power to fix prices", 148 F. 2d at 427-428. As this Court has said, Sections 1 and 2 of the Sherman Act are complementary. *United States* v. *Standard Oil Co.*, 221 U. S. 1, 61-62.

We do not here urge that in *no* circumstances may competition of substitutes negative possession of monopolistic power over trade in a product. The decisions make it clear at the least that the courts will not consider substitutes other than those which are substantially fungible with the monopolized product and sell at substantially the same price. We shall later show that the district court's findings, as well as du Pont's own declarations, establish that the so-called "other flexible packaging materials" are not, as compared with cellophane, *either* substantially fungible *or* like priced (*infra*, pp. 76-86).[58]

The relatively few cases which have dealt with the question of the products to be considered in passing upon the charge of monopolizing have consistently ruled that consideration is to be limited to products which are, from the purchasers' standpoint, fungible.

[58] By the words "substantially fungible," we mean simply that a product is so closely similar in function and characteristics to another product that it is, for all practical purposes, immaterial to the user whether he obtains one or the other.

In *Standard Oil Co.* v. *United States*, 283 U. S. 163, 176-177, this Court held that the cross-licensing of defendants' cracking-process patents did not effect an illegal monopolization or restraint of trade because gasoline made by this process is "indistinguishable from" straight run gasoline and is "sold interchangeably" with the latter, so that the defendants, lacking control over straight run production, "could not effectively control the supply or fix the price of cracked gasoline".

Times-Picayune Publishing Co. v. *United States*, 345 U. S. 594, presented the question of whether the owner of a city's sole morning newspaper and one of its two afternoon papers violated Sections 1 and 2 of the Sherman Act by selling advertising space only on the basis of insertion in both the morning and afternoon paper. The Court held that this practice did not constitute use of a monopoly position in the morning field as leverage to restrain and monopolize trade in the afternoon field because "advertisers viewed the city's newspaper readers, morning or evening, as * * * fungible customer potential", and it therefore had to be assumed that advertisers obtained "the self-same 'product' ", namely, access to newspaper readers, whether they advertised in a morning or in an afternoon paper. 345 U. S. at 613.

In United States v. *Corn Products Refining Co.*, 234 Fed. 964, (S. D. N. Y.), the defendants, who were charged with monopolizing starch and glucose made from corn, contended (p. 975) that the basis for determining their control over this trade was "not only the starch or glucose production, but also

those substances with which the starch and glucose come into competition in their end products." Judge Learned Hand, in rejecting this contention, analyzed the nature of the other-product competition on which the defendants relied. 234 Fed. at 975-976. He held that sago and potato and wheat starches were not to be considered because they have "a distinguishable use value and a higher cost of production". *Id.*, 976. The court observed that if the price of the monopolized product "got high enough", substitutes would displace it, but it held that this circumstance did not make the competition of these substitutes relevant; there was like limitation on the power conferred by any monopoly (*ibid.*).

The court also held that syrup having 40% glucose is "a different article" from corn syrup with 90% or 85% glucose, and was therefore not to be considered in determining defendants' control over trade in corn syrup (*ibid.*). The purchaser buys one article rather than the other because "he likes it"; his preference for high-glucose rather than low-glucose syrup or candy permits the monopolist of high-glucose syrup to exact, by reason of this preference, an increment of monopoly profit (*ibid.*).

In the case of starch sold to brewers, what the brewer wants is maltose, and both starch and "refined grits" furnish maltose. *Id.*, 975. Since from the brewers' standpoint the two products are "indistinguishable in use", sales of "brewers' grits" must be given consideration in determining de-

fendants' control over the corn starch trade, subject to the qualification that the cost of production of the two products is substantially equal. *Id.*, 975-976.

In *Fashion Originators' Guild* v. *Federal Trade Commission*, 114 F. 2d 80, 85 (C.A. 2), affirmed, 312 U. S. 457, the court, per Judge Learned Hand, pointed out that one design is not fungible with another, and that when the Guild members attempted to prevent sales of dresses which embodied their "original designs", they attempted to monopolize products not fungible with others. The court said further that such attempt to monopolize was "unlawful per se" even though the sanction of the attempted monopoly "may be very weak" since it depended upon the attraction of particular designs over others (*ibid.*).

In the present case, the district court quoted and relied on (R. 288) certain statements of this Court in *United States* v. *Columbia Steel Co.*, 334 U. S. 495, 527-528, dealing with the question whether the elimination of competition in the steel industry which resulted from acquisition by one company of another constituted a prohibited restraint of trade.[59] The alleged restraint was not illegal *per se* and, as found by this Court, the acquisition was not for the purpose of restraining or monopolizing trade. In these circumstances, many factors were relevant to the legality of the restraint, including "the percentage of business con-

[59] The paragraph discussing *Columbia Steel*, including the particular quotations from the opinion in that case, is taken verbatim from du Pont's district court brief (p. 12-13).

trolled, the strength of the remaining competition, * * * consumer demands, and other characteristics of the market". But on the issue presented in the instant case, whether du Pont had monopolized trade in cellophane, what is relevant is du Pont's command over that trade, not its command over some other "part" of interstate commerce. The proper range of inquiry is therefore altogether different from that in the charge of Section 1 violation considered in *Columbia Steel*.

Achievement of the basic objectives of the Sherman Act and the controlling precedents alike require the conclusion that the monopolization which is prohibited is not confined to power over prices and sales which is free from indirect or potential limitation. The statute is violated when there is power to dominate and control commerce in any article which is bought and sold as a distinctive item of trade, and a showing of "competition" of subsitutes does not negate possession of such power, at least if the substitutes are not substantially fungible with, and do not carry substantially the same price-tag as, the monopolized product.

3. *Under the district court's findings and du Pont's own declarations, "other flexible packaging materials" are not substantially fungible substitutes for cellophane, nor are they sold in the same price range*

Over the years, cellophane production and sales have gone forward by leaps and bounds (*supra*,

pp. 18-19). At the same time profits have been consistently high, indeed, very high (*supra*, pp. 16-18). If there had been during the long period since 1923 like-priced and substantially fungible articles, this phenomenal industry growth, coupled with high earnings, would have been impossible.

The sheer volume of cellophane sales tells the same story. In 1930 du Pont's sales were close to $11,000,000; in the year the complaint was filed sales of the two domestic producers were about $72,000,000 (fng. 337, R. 165). Purchases running into millions of dollars every year, and constantly growing,[60] can only mean that the purchasers in this great volume of trade believed cellophane to be the product which, from the standpoint of its composite characteristics and price, best satisfied their needs (or a part thereof). One who commands this vast market, by having power to exclude competitors or to dictate price, possesses the very essence of monopoly power.

But we need not rest the matter solely on the foregoing basic facts, compelling as they are. The district court found: "Waxed paper, glassine, and sulphite paper were dominant flexible packaging materials in 1924 and are today" (fng. 687, R. 250).[61] In its opinion the court said that waxed paper and glassine are "the two principal packaging materials which dominated the flexible pack-

[60] The rate of growth, we note in passing, exceeds that of the class of selected products which du Pont contends are part of the same market. See DX-981, R. 5594.

[61] The finding is a repetition, in slightly different words, of a prior finding (fng. 39, R. 72).

those of cellophane. It is there stated that sulphite paper is a high grade, machine-glazed paper "used as wrapping" for packaging of food and other merchandise;[51] it is the usual "paper component" of cigarette packs; and is used where moderate strength, flexibility, good coating, and printed surface are required.

Not only in function but in price, there is wide disparity between sulphite paper and cellophane. Average 1949 wholesale prices (in cents per 1,000 square inches) were: sulphite paper .7, plain cellophane 2.1, moistureproof cellophane 2.3.[52] The price of sulphite paper was, in short, one-third or less the price of cellophane.

Saran is a product at the opposite end of the scale. It parallels cellophane in most of its physical properties (fng. 59), but its 1949 price was more than 2½ times that of moistureproof cellophane (fng. 130).[53] And if Saran be compared with sulphite paper, both products which the court labeled "flexible packaging materials", the difference in price category is even more striking—in 1949 Saran's price was almost nine times the price of sulphite paper (fng. 130).

The words "flexible packaging materials", to which so many of the findings are tied, therefore

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[51] In DX-1008-B, the source of the description in finding 62, the words corresponding to those quoted above are "used largely as wrapping or bag paper" (R. 5761). A purchase at a drug store might be wrapped in sulphite paper (R. 1677).

[52] Finding 130 (R. 106-107), as explained in note 49, *supra*, p. 44. See also DX-994 (R. 5630).

[53] In 1947, when the complaint was filed, Saran's price was 4½ times the price of moistureproof cellophane (DX-994, R. 5630).

embrace a wide range of wholly disparate products; yet the products indiscriminately embraced by these words, and the "market" for them, were held by the court to be the measure and test of du Pont's possession of monopoly power over trade in cellophane.

We have already pointed out that prices of "other flexible packaging materials" did not take from du Pont power to fix and control the price of cellophane (*supra*, pp. 38-41). We show later that du Pont itself firmly believed that cellophane was a differentiated product having its own distinct demand and market, and that no other so-called flexible packaging material was directly competitive with cellophane (*infra*, pp. 83-86).

SUMMARY OF ARGUMENT

I

A. Section 2 of the Sherman Act prohibits monopolization of "any part of the trade or commerce among the several States." It thus applies, in this Court's words, to "any one of the classes of things forming a part of * * * commerce." *United States* v. *Standard Oil Co.*, 221 U.S. 1, 61.

The district court's findings establish that cellophane is a distinctive product, bought and sold as such in great volume. That this trade is a "part" of commerce within the meaning of Section 2 is unmistakably clear from decisions holding the Act applicable to monopolization of commerce in products or services constituting an appreciably narrower segment of the economy than cellophane.

B. 1. The court nonetheless took the view that

the Government's case failed, because, absent domination of the entire "flexible packaging materials market", there could be no unlawful monopoly of cellophane. It was on the basis of this express determination that "[t]he relevant market for determining the extent of du Pont's market control is the market for flexible packaging materials * * *" that the court concluded that monopolistic power over the cellophane trade was negatived. This holding as to the relevant market—a holding which lies at the root of the decision below—misinterprets the Act and is inconsistent with the court's own subsidiary findings of fact.

2. "Substitutes," of course, "are available for almost all commodities." *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 426 (C.A. 2) (finding monopolization of "virgin" aluminum as distinguished from "secondary" aluminum). Thus, rarely if ever is the degree of economic power conferred by monopoly free from all competitive limitation. If the existence of a free market in substitutes were sufficient to negative the possession of monopoly power, Section 2, for all practical purposes, would be a dead letter.

The statute's unequivocal reference to "any part" of commerce is calculated to avoid the danger of such emasculation. These words, at the least, place a very heavy burden upon him who would claim that monopolization of a product is innocuous because there are substitutes available. In consequence, as analysis of the pertinent decisions reveals, almost all monopolization cases have been

adjudicated with little or no reference to the factor of substitute competition. Note, *e.g.*, *United States* v. *Paramount Pictures, Inc.*, 334 U.S. 131, 172-173, holding the distribution of motion picture films for *first-run* exhibition to be an area of monopolization; *Fashion Originators' Guild* v. *Federal Trade Commission*, 114 F. 2d 80, 85 (C.A. 2), affirmed, 312 U.S. 457, holding the attempt to monopolize trade in dresses embodying "original designs" to be "unlawful per se," even though the sanction of the monopoly "may be very weak" because of its dependence upon the attraction of particular designs over others.

It is wholly unnecessary to urge that there are *no* circumstances in which competition by substitutes may negative possession of monopoly power over trade in a product. For this much may safely be said: There is no authority for the inclusion of substitutes in a market definition when the substitutes are *not* substantially fungible and like priced. The district court, though it concluded that there could be no unlawful monopolization by du Pont in the absence of domination of the trade in "other flexible packaging materials," did not find that those "other" materials are substantially fungible or like priced. It could not have done so, because the uncontroverted evidence and the court's own subsidiary findings are to the contrary.

3. The high rate of profits and the spectacular growth in cellophane trade are, in themselves, strong indicia of the distinctiveness of the product.

But we need not rest the matter there. The court found that the two principal competitors of cellophane are waxed paper and glassine. During the relevant period, cellophane cost between seven times as much and twice as much as waxed paper or glassine. Cellophane could hardly have captured a vast and increasing amount of trade if products not significantly different were available at one-seventh to one-half the price.

Moreover, the court's findings as to the significant physical characteristics of the other principal "flexible packaging materials" show that they differ from cellophane not only in *some* but in *most* respects.

The picture was not changed by the introduction of the so-called plastic films. It appears that they came "too little and too late" to be significant for purposes of the violation period covered by the complaint. Moreover, these products are substantially higher-priced than cellophane and could accordingly win acceptance only for limited and specialized uses.

Finally, the record shows that du Pont, in making its own plans, forecasts, and business judgments, considered cellophane's true competition to be that provided by *other cellophane*.

Since commercial consumers of wrapping materials buy such materials for an almost infinite number of uses, it is unquestionably true (as it is in the economy generally) that there are constant and countless shifts as between different materials which have varying degrees of similarity, and that

price changes are one of the factors involved in such shifts. We do not suggest that the consumer has no degree of choice as between cellophane and other materials. We do say that such choice is not one (to adopt the terminology of *Times-Picayune Publishing Co.* v. *United States*, 345 U.S. 594, 613) between self-same products. To cite an example, the fact that the nation's shippers are ordinarily in a position to send freight by one of several media—rail, motor, water or air—scarcely leads to the conclusion that no one of these media would be susceptible of monopolization in the absence of control of the entire transportation system. No more does du Pont's failure to control the so-called "flexible packaging materials market" warrant the conclusion that it could not have monopolistic power over the trade in cellophane. For this record and the court's own findings demonstrate what will come as a surprise to no one: cellophane is a highly distinctive product and it is distinctively priced.

II

If the market is correctly defined, *i.e.*, in terms of *trade in cellophane*, it follows from the district court's findings of specific facts, as supplemented by undisputed evidence, that there has been monopolization as charged.

The test of monopoly power is whether there is power to control prices or to exclude competition to a substantial extent. *American Tobacco Co.* v. *United States*, 328 U.S. 781, 784-786, 810-811. The

"mere existence" of such power, irrespective of its exercise, constitutes "a menace to and a direct restraint upon that freedom of commerce which Congress intended to recognize and protect and which the public is entitled to have protected." *Id.*, pp. 810-811.

It is unnecessary to determine that monopoly power, which is in itself "an evil," has been "unlawfully acquired," or that its achievement was evidenced by "specific intent" in the common-law sense of that term. *United States* v. *Griffith*, 334 U.S. 100, 105, 107. It is enough that it resulted from the "defendant's conduct or business arrangements." *Id.*, p. 105. There is only this caveat: When monopoly power is "unwittingly" thrust upon a defendant "by force of accident" (*e.g.*, when a market is so limited that only a plant capable of supplying the entire demand could operate, or when monopoly results simply and solely from a company's skills, abilities and natural advantages), a statutory exception might be implied. *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 429-430 (C.A. 2); and see *United States* v. *United Shoe Machinery Corp.*, 110 F. Supp. 295, 343 (D. Mass.), affirmed, 347 U.S. 521.

Here, as we shall point out, du Pont had power to exclude competition; it had power to control price; and its monopoly power, far from being thrust upon it, was achieved by the use of means which were illegal and exclusionary.

A. On the facts found, as supplemented by wholly uncontroverted facts, du Pont had power to exclude others from manufacture of cellophane in the United States.

The *sine qua non* of du Pont's successful entry into the cellophane business in 1923 was its acquisition, pursuant to agreements with La Cellophane (a French company), of the latter's secret process. These agreements in terms conferred upon du Pont exclusive rights in North and Central America. The La Cellophane process has been used by the principal cellophane producers of the world (each within its agreed territory) and there is no other process which achieves comparable results.

Du Pont not only obtained, for its territory, exclusive dominion over that process but, also for the same area, the exclusive right to receive and use all subsequent discoveries and technical developments of La Cellophane, Kalle and BCL (the two latter foreign companies being other members of an international cartel formed to exploit the La Cellophane process). Du Pont's power to exclude thus rested on (1) exclusive dominion, within its territory, over the La Cellophane process, and (2) a vast reservoir of technical information, requisite to successful utilization of the process, obtained by exclusive interchange agreements with foreign producers and by means of du Pont's own experience and research.

There is no room for doubt as to the effectiveness of this engrossment of the superior secret process and related technical information. Cellophane,

from the first, was a "growth" industry with an extremely high profit rate. Yet, until the start of trial in 1951, only one other company, Sylvania, undertook cellophane manufacture in the United States. And it was enabled to do so only because two La Cellophane officials absconded with blueprints and complete information as to La Cellophane's process, and thereupon founded a Belgian concern which set up Sylvania as an affiliate.

Olin, an American company of great resources, sought for many years to enter the business and expended approximately a million dollars in unsuccessful preliminary efforts which it abandoned in 1944. It finally entered the field in 1951 after du Pont, following the filing of this suit, opened the door to it in order "to reduce the hazard of being judged * * * a monopoly" (du Pont's words).

A Canadian company, CIL, entered the business in Canada (to which territory it was expressly limited) under an agreement with du Pont whereby du Pont "sublicensed" it to use the La Cellophane process and both parties undertook, for the future, technical interchange with exclusive rights for each in its respective territory.

The specific findings and undisputed facts permit only the conclusion that entry into the business within the territory assigned to du Pont under the cartel agreements was subject to the will of du Pont.

In holding, contrariwise, that du Pont lacked power to exclude competition, the court gave as its

reasons (1) that du Pont cannot "inhibit entry of other companies into the manufacture of the many different types of materials" which constitute the "flexible packaging market"; (2) that du Pont has no corner on essential raw materials; (3) that entry into the business by Sylvania, Olin and foreign producers negatives technological control; and (4) that du Pont's patents, whatever strength they provide, are available at reasonable royalties.

But this ignores (1) that the relevant market is trade in cellophane, not trade in "flexible packaging materials"; (2) that control of raw materials is but one of many ways in which a monopolist may preempt a market; (3) that Sylvania, Olin and the significant foreign producers have the use of the La Cellophane process (Sylvania as the result of the theft, Olin as the result of actions taken in consequence of this suit, and the foreign companies as participants in the international cartel); and (4) that du Pont's offer to license patents at reasonable royalties took place in 1948, after its most significant patents (on "moistureproof") had expired and after suit had already been filed.

13. Although defendant submitted 854 findings and 854 substantially identical findings were entered, no finding was proposed or made that du Pont lacked power to control the price of cellophane. Specific findings which were entered affirmatively show that there was such power.

It appears that in the period 1924-1929, when du Pont was the sole domestic producer, imports

provided only limited and ineffective competition and that du Pont's prices (which were higher) yielded it truly extraordinary profits.

After 1929, imports practically stopped in the face of increased duties. Sylvania began production in 1930 but, as the court found, Sylvania at all times has adopted du Pont's prices as its own. Moreover, Sylvania's limitations, in terms of size, resources, output, and quality of product and service, were such that it could not potentially limit, to any appreciable degree, du Pont's power over the cellophane market.

Du Pont's prices have been lowered over the years in order to induce broader utilization of the product and to increase volume. The rate of profit has remained very high. As Judge Learned Hand said of a monopolist whose rate of return was far lower, "[there] is no evidence that a 'fair' profit could not have been made at lower prices," *United States* v. *Aluminum Co. of America*, 148 F.2d 416, 427 (C.A. 2).

The district court was of the view that du Pont could not set "arbitrary" sales terms because of the existence of substitute "flexible packaging materials." But, as argued in Point I, the principal substitute products upon which the court relied in reaching this conclusion had different characteristics and sold in a markedly different price range. Notwithstanding the existence of these substitutes, selling at one-half or less cellophane's price, there has been phenomenal growth in cellophane production and sales. This could have been achieved only

if, as to a vast volume of trade, cellophane's composite characteristics rendered it superior to the lower-priced substitutes. Such superiority necessarily conferred upon the monopolist of cellophane a wide range within which to fix cellophane's price at the point where it would yield the greatest long-run profit. This is the very essence of monopoly power over price.

C. Du Pont's monopoly power, far from being thrust upon it, was achieved by illegal and exclusionary means.

1. The initial 1923 agreement between La Cellophane and du Pont (supplemented by a further agreement of the same year) at once provided the foundation for du Pont's entry into the cellophane business and established an illegal cartel (which, as indicated *infra*, was later expanded to include other foreign companies). The agreement granted to du Pont the exclusive right to use, in North and Central America, the basic process for making cellophane and any improvements thereon subsequently originated or acquired by La Cellophane. It provided further that North and Central America would be exclusive du Pont sales territory. The rest of the world, so far as du Pont was concerned, was to be La Cellophane territory. The reciprocal restraints imposed upon sale in one another's territory were without limitation as to time (though, after seventeen years of observance, the various covenants between the parties were modified, in 1940, under circumstances discussed *infra*).

Recognizing that the parties had formed a cartel

providing for a territorial division of production and sales, the district court stated: (1) that it did not accept the "argument [that] a territorially limited license under a secret process is *per se* illegal;" (2) that a "joint venture to exploit a particular product or a particular market" (La Cellophane originally had a minority interest in the du Pont cellophane enterprise) is not unlawful, absent an overriding unlawful purpose; and (3) that the restraints here were reasonably ancillary to assignment of a trade secret.

This Court has consistently held from the date of *Addyston Pipe & Steel Co.* v. *United States*, 175 U.S. 211, 241, decided in 1899, down to its most recent holding on the subject in 1951 (*Timken Roller Bearing Co.* v. *United States*, 341 U.S. 593, 596-599) that agreements to allocate or divide territories are illegal *per se*. Moreover, as *Timken* teaches (pp. 597-598), an agreement to allocate trade territories incident to an otherwise legitimate "joint venture" violates the Sherman Act.

The argument that the restraints were permissible because they were related to the assignment of rights to a secret process also had its counterpart in *Timken*, where it was contended that the agreements of the parties to stay out of each other's territory were incident to the sale of know-how and "information with respect to inventions, discoveries and practices whether patented or not" (district court opinion, 83 F. Supp. 284, 312 (N.D. Ohio)), and were justified, additionally, as "reasonable steps taken to implement a valid trademark

licensing system" (341 U.S. at 598-599). But, as there held (*ibid.*), a forthright agreement not to compete does not escape the ban of the Sherman Act by showing that it was ancillary to something of value contributed or transferred by one of the parties to the other.

Even if *Timken* were not controlling on this point, it is plain that the common-law doctrine concerning restraints ancillary to sale, upon which the district court apparently relied, was one limited to partial restraints upon the seller, reasonably necessary to protect the buyer from renewed activity by the seller which might promptly destroy the value of that which had just been transferred. An agreement between two companies to divide, for the indefinite future, the world market for a product cannot be deemed "reasonably necessary" by any standard. See *United States* v. *Addyston Pipe & Steel Co.*, 85 Fed. 271, 282 (C.A. 6), affirmed, 175 U.S. 211.

2. Supplementing its trade allocation arrangements, du Pont and La Cellophane entered into a technical exchange agreement, also consummated in 1923. It provided, without limitation as to time, for the exchange of "rights, trademarks, patents, patent rights, processes and apparati that may hereafter be discovered, invented or developed * * * having to do with cellophane or the processes or apparati for manufacturing or using it." Under this agreement, the parties were to acquire exclusive rights, each within its own territory.

The same agreement provided further that if La Cellophane authorized any company to manufacture under its processes outside of France and

North and Central America, that company should be entitled to obtain all rights, patents and information received by La Cellophane from du Pont, subject to the condition that it would agree to furnish, free of charge, corresponding rights and information to du Pont. When La Cellophane thereafter authorized German Kalle and British Cellophane Ltd. (BCL) to operate within specified territories, those companies entered into 20-year technical exchange agreements with du Pont, which provided that, upon termination, all rights previously assigned would "remain in full force." When du Pont licensed CIL to manufacture and sell in Canada (du Pont territory), it similarly provided for a full technical interchange.

By this network of agreements, those who dominated world trade in cellophane created a common pool of all their future inventions, discoveries, and technical developments, and denied to others access to any part of what went into the common pool. This preemption, by combination, of what was of great value, if not essential, to successful manufacture of cellophane, operated as a bar to entry into the business and served to maintain for each party a monopoly within specific territory. Agreements having such trade-restraining and monopolistic effects are plainly forbidden by the Sherman Act. *United States* v. *National Lead Co.*, 63 F. Supp. 513 (S.D. N.Y.), affirmed, 332 U.S. 319.

3. In 1933, following a threatened dispute as to patent rights, du Pont licensed Sylvania (the only other manufacturer of cellophane in the United

States during the complaint period) under its moistureproof patents. The contract provided, *inter alia*, for exclusive cross-licensing of future moistureproof patents acquired by either party prior to 1948. This pooling of future patents by the only American producers of cellophane was a further restraint upon trade and an added obstacle to entry by potential competitors. See *National Lead, supra*, 63 F. Supp. at 532; *cf. Transparent-Wrap Machine Corp.* v. *Stokes & Smith Co.*, 329 U. S. 637, 646-647.

The same agreement was exclusionary, moreover, insofar as it imposed production-quota limitations upon Sylvania's output of moistureproof cellophane (a result achieved by setting prohibitive royalties if and when Sylvania's production exceeded specified percentages of the combined moistureproof sales of the two companies).

4. Du Pont continued to possess unlawful monopoly power notwithstanding the fact that the above agreements were, in large part, ultimately modified or terminated.

In 1940, du Pont gave notice that, in view of "legal developments in this country" (*i.e.*, the antitrust laws), it would no longer construe its agreements with foreign companies as imposing restrictions on sales. No reference was made to territorial restrictions upon manufacture.

In 1941, as a result of wartime conditions, du Pont eliminated the requirement of further technical interchange with La Cellophane and Kalle. No reference was made to territorial restrictions on

aging markets at the time cellophane was introduced and still dominate these markets today" (R. 300). See also R. 289-290. As to these "dominant" or "principal" flexible packaging materials, they are, as compared with cellophane, neither like priced nor fungible.

At all times there has been a wide gap between the price of these materials and the price of cellophane. The court found that the price of moisture-proof cellophane was seven times that of glassine in 1929, four times its price in 1934, and about double its price in 1949 (fng. 136, R. 108). This finding is based on DX-994 (R. 5630), which shows that the price of waxed paper has always been almost the same as that of glassine, and that the price of sulphite paper has always been appreciably below glassine's price. It is indisputable that cellophane could not have captured a vast and increasing amount of trade if there had been other fungible products contemporaneously selling at prices from one-seventh to one-half cellophane's price.

Over and beyond such proof, the fact that these products do not even closely approach fungibility is established by the table comparing "descriptively" the physical properties of cellophane and "other flexible packaging materials", incorporated in finding 59 (R. 78-79). This shows that cellophane differed from glassine in "clarity", "tear strength", "bursting strength", "permeability to gases", "dimens. change with humid diff.", "re-

sistance to grease and oils", and (for two of the three types of glassine listed) in "water absorption" and "moisture permeability". Waxed paper differed from cellophane in nine of the eleven physical properties set forth.[62] Sulphite paper differed from cellophane in eight of the eleven enumerated physical properties and, what is most significant, cellophane is "highly transparent" and sulphite paper "opaque".

It is equally clear that the charge—monopolization of the trade in cellophane up to the date of the filing of the complaint in 1947—is unaffected by the introduction of the so-called plastic films. The part which they played can be characterized as too little, too late, and too high-priced.

Finding 280 (R. 148-149), which sets forth 1949 production and imports of "flexible packaging materials", is, as shown by the note thereto, taken from DX-982 (R. 5597), one of the exhibits prepared at the request of du Pont's counsel by a firm of management consultants (R. 1671, 1673, 1675). The exhibit gives "Total United States Production and Imports of Selected Flexible Packaging Materials" biennially for the period 1925-1949, inclusive. Pliofilm, polyethylene, Saran, and Cry-O-Rap (plastic films) are grouped together, and 1947 is the first year for which figures for this group are given. Furthermore, in 1947 the group total was only 3.2%

[62] Under "printability", the statement for cellophane is "Yes" while for waxed paper reference is made to a note which reads: "Normally printed before waxing."

of cellophane production and imports.[63] While the exhibit shows production of cellulose acetate (also a plastic film) beginning as early as 1931, only in two years (1943 and 1945) was it as much as 5% of cellophane production (DX-982, R. 5597). The district court found, moreover, that the growth of polyethylene, pliofilm, cellulose acetate, and Saran "is so recent the relatively small quantity of these materials produced up to 1948, or even at the time testimony was taken, is not a reliable index of their future importance" (fng. 688, R. 250).

In addition, it appears that the plastic films were sold at such a great price disadvantage that they could win acceptance over cellophane only for limited, specialized uses. Polyethylene and Saran started at prices about 4½ times cellophane's price and, notwithstanding a sharp later drop in their prices, in 1949 they still were more than double cellophane's price (DX-994, R. 5630).[64] Pliofilm's price range was from 4¼¢ to 3½¢, while moisture-proof cellophane's contemporaneous range was from 2⅝¢ to 1⅞¢ (*ibid.*). The price of cellulose acetate, of which du Pont is one of the three principal producers (R. 1676), was comparable to that of

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[63] That there was no appreciable production of these materials prior to 1947 is confirmed by DX-994 (R. 5630), an exhibit prepared by the same firm (R. 1705). DX-994 lists the price of pliofilm from 1938 onwards, but does not list polyethylene's price until 1946, Saran's price until late in 1946, and does not list any price for Cry-O-Rap.

[64] There is a larger and clearer reproduction of DX-994 in DX-998 (R. 5665).

cellophane through 1946; thereafter it was appreciably higher (*ibid.*).

The court found that, as to certain broad categories of "end use", various kinds of wrapping material are used (fng. 283, R. 150-151).[65] We submit that this fact has little, if any, significance. What the packager wants to achieve by means of wrapping varies from commodity to commodity, and varies, indeed, with different kinds of the same commodity. This is strikingly shown by the fact that about 96% of "packaged white bread" is wrapped in waxed paper or glassine, whereas 48% of "specialty breads" are wrapped in cellophane made by du Pont (fngs. 284-285, R. 151). The packager may even sell the same item, of the same quality, wrapped in different materials. For example, Armour sells sliced bacon wrapped in cellophane at a price two or three cents higher per pound than its bacon wrapped in parchment paper, thereby appealing to different classes of customers (DX-1019, R. 5992-3; R. 2331-3).

Purchasers of wrapping materials make their choice on the basis of cost, facility in use, the type and degree of protection needed, and merchandising appeal (fng. 159, R. 114). There are many variables for each factor. In the matter of merchandising appeal, full transparency of the wrapper may be highly important, indeed essential, for

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[65] The classifications are "bakery products", "candy", "snacks", "meat and poultry", "crackers and biscuits", "fresh produce", and "frozen foods exclusive of dairy products."

the successful retail marketing of some goods but in marketing others an opaque wrapper may be satisfactory or even advantageous. In the case of ordinary bread, for example, ability to see it furnishes little sales stimulus; an opaque wrapper, with the kind of bread and the maker's name boldly printed, may "sell" the bread better, at least if a saving in wrapping cost makes its price lower. But this is not true in the sale of cakes. An officer of the National Biscuit Company, testiying on deposition as a du Pont witness, stated (R. 5924-5): "NBC now packages all its cake in cellophane. * * * Its cake competes with that put out by other companies, most of which is wrapped in cellophane because if not wrapped in cellophane it would probably not sell. Customers want to see what they are buying."

As the court found, the customer, of course, has a choice. But, as the findings and undisputed evidence equally demonstrate, the choice which is offered the purchaser of wrapping materials is not a choice among "self-same" products. Each is "a different article", and cellophane preeminently is such, different in its composite characteristics and different in its price category.

The district court declared: "Shifts of business have been proved" (R. 292). But the fact that, for many uses, cellophane may provide only a slight margin of advantage, price considered, does not show that one who has, as to the cellophane trade itself, monopoly power, lacks the monopoly power against which the statute is directed. There

are marginal purchasers for any commodity, whether monopolized or not.[66]

Finally, du Pont's own view of the competition which cellophane encounters lays bare the artificial nature of the whole elaborate structure of findings built upon the court's concept of the "pertinent market."

In 1923 when du Pont was considering whether it should undertake cellophane manufacture, its Development Department submitted a report to its Executive Committee which carefully examined the prospects of success in this business (GX-392, R. 3541-70). The report names glassine paper, sheet gelatin, and tin foil as the "principal competitive products" (R. 3547). Glassine paper, so the report states, has probably "the broadest use * * * due principally to its low cost" (R. 3547-8), but it "is so inferior that it belongs in an entirely different class and has hardly to be considered as a competitor to cellophane" (R. 3549). Sheet gelatin, according to the report, "is so inferior in quality, while at the same time nearly as expensive as cellophane, that the gelatin probably would be almost eliminated from use as soon as cellophane can be marketed in sufficient quantity to meet the demand" (R. 3549). Tin foil was said to be more moistureproof and somewhat cheaper than cellophane, but these might be only temporary advantages, "and the added attractiveness due to trans-

[66] In *Standard Oil Co.* v. *United States*, 337 U.S. 293, 307, the Court observed that even for patented articles "there may be many competing substitutes."

parency of the wrapper is of sales value" (R. 3549-50). The over-all conclusion was that if du Pont's investment in a new cellophane company was partly represented by preferred stock and partly by common, "the preferred stock can be retired out of the earnings made during the first two years, after which the remaining capital stock should show earnings in excess of 30%" (R. 3563).

The record contains 23 "Competitive Reports" made by du Pont officials and submitted to its Executive Committee, dealing with its cellophane business from the competitive angle.[67] The competition considered in these reports is almost exclusively that of *other cellophane*—initially, imported cellophane and, later, Sylvania's. Of the entire series, only two make even casual reference to "competition" of packaging materials made from paper (GX-438, R. 3737; GX-439, R. 3744).

In 1939 when du Pont was contemplating erection of a new cellophane plant at Clinton, Iowa, a report by the head of du Pont's Cellophane Division was submitted to its Executive Committee

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[67] Two are quarterly, seven semi-annual, and fourteen annual reports. The reports, showing the year or part year involved are:

1928, GX-430, R. 3651. *1929*, GX-433, R. 3678; GX-434, R. 3690. *1930*, GX-435, R. 3702. *1931*, GX-437, R. 3724; GX-438, R. 3730. *1932*, GX-439, R. 3739; GX-440, R. 3746. *1933*, GX-441, R. 3754; GX-442, R. 3759. *1934*, GX-443, R. 3764. *1935*, GX-76, R. 3107; GX-77, R. 3122. *1936*, GX-444, R. 3783; *1937*, 3165. *1941*, GX-83, R. 3187. *1942*, GX-84, R. 3192. *1943*, GX-85, R. 3197. *1944*, GX-86, R. 3203. *1945*, GX-87, R. 3208. *1946*, GX-88, R. 3212. *1947*, GX-445, R. 3799.

(GX-425, R. 3642-50). Under the heading "The Competitive Situation", it was stated that there is "but one competitor making identical material", and that, although several types of film were being offered "in a small way" by others, "none of them as yet has replaced any important volume of our established business" (R. 3649). There was no mention of glassine, waxed paper, or sulphite paper (R. 3649-50).

Last and most significant of all is a 74-page report dated February 16, 1950, and entitled "Survey of Cellophane Future Capacity—Economics and Competition", which was made by the Technical and Cellophane Divisions of du Pont's Rayon Department on the basis of a three and a half months' survey (GX-587, R. 4061, 4063, 4145).[68] Nine pages of the report deal with cellophane's "Competitive Position", first, "Against Cellophane" (R. 4070-3) and, second, "Against Non-Cellophane Films" (R. 4073-9). No reference whatever was made to glassine, waxed paper, or sulphite paper, which the district court found to be the "dominant" flexible packaging materials (*supra*, p. 77). The report categorically states: "Competition for du Pont cellophane will come from competitive cellophane and from non-cellophane films made by us or by others" (R. 4070).

[68] The report, "conservatively" assuming that no new uses for cellophane will develop, estimated that in 1965 cellophane sales will be 540,000,000 pounds, compared with the forecast of 1950 sales of 275,000,000 pounds (R. 4064, 4067). [As shown in GX-531-a (R. 3876), actual 1950 production was about 262,700,000 pounds.]

Concerning competition of plastic films, the report states that "while non-cellophane and cellophane films markets over-lap, prices are different, and the combinations of useful properties in the non-cellophane films are by no means identical with those of cellophane" (R. 4073). Thus, after an elaborate and up-to-date survey, du Pont itself concluded that the various films which were being marketed were, as compared with cellophane, neither substantially fungible nor like priced. The report also recognizes and declares the peripheral nature of the competition of these films. The report states (*ibid.*):

> The difficulty of comparison will continue until some other film can do cellophane's entire job or until another film reaches cellophane's cost. Until then non-cellophane films will attack cellophane marginally and find markets peculiarly their own as they do now.

Thus, du Pont's own experience, fully reflected in careful studies and reports, and the court's findings lead inevitably to the conclusion—one which will scarcely come as a surprise to either consumer or economist [68a]—that cellophane is a highly distinctive article of commerce both in terms of its attributes and its price. They demonstrate, by the same token, that it was error to judge the issue of monopoly power over trade in cellophane

[68a] See conclusions of Stocking & Mueller, *The Cellophane Case and the New Competition*, 45 American Economic Review 29, 63, whose study measures the court's conclusion as to the pertinent market against various market theories.

by the test of power over the so-called "flexible packaging materials market."

II

The District Court's Findings of Specific Facts, as Supplemented by Undisputed Evidence, Establish That du Pont Has Illegally Monopolized Trade and Commerce in Cellophane

Before setting forth the facts which show, as we believe, du Pont's violation of the Sherman Act, we briefly state the effect of the leading pertinent decisions dealing with the unqualified command that no one shall "monopolize" any part of interstate commerce.[69]

The recent comprehensive discussion of Section 2 in *American Tobacco Co.* v. *United States*, 328 U.S. 781, provides an appropriate starting point. The Court there held (p. 811) that "the material consideration in determining whether a monopoly exists is not that prices are raised and that competition actually is excluded but that power exists to raise prices or to exclude competition when it is desired to do so." Existence of such power, irrespective of its exercise, establishes violation *(ibid.)* for, as the Court said (pp. 810-811), its "mere existence" constitutes "a menace to and a direct restraint upon that freedom of commerce which Congress intended to recognize and protect and which the public is entitled to have protected."

The power to exclude others from the trade which comes within the ban of Section 2 is not limited

[69] We do not here consider the effect of the words "any part", which was discussed under Point I.

to power absolutely to exclude. In *American Tobacco* the Court sustained the validity of a jury charge which made existence of power to exclude competitors "to a substantial extent" the test of illegal monopolization, and which defined the forbidden power as being a domination of trade sufficient to confer the power "to exclude actual or potential competitors from the field." See 328 U.S. at 784-786.

Since the issue under review in *American Tobacco* grew out of a charge to the jury based upon power to exclude, this Court's decision dealt primarily with this aspect of monopoly power. The Court, however, specifically ruled that trade is also illegally monopolized when it is subject to the domination and control inherent in possession of power to raise prices. Furthermore, this Court quoted from and expressly endorsed the opinion in *United States* v. *Aluminum Co. of America*, 148 F.2d 416 (C.A. 2), 328 U.S. at 813. The interpretation there given to Section 2 may therefore be regarded as authoritative.

In the *Aluminum* case the crux of the violation found to exist was that defendant "Alcoa" dominated trade in "virgin" aluminum ingots to such degree that it could fix the sales price for these ingots without reference to prices currently charged or offered by other sellers; in other words, that the defendant had power to fix the going or market price for ingots. The Court, in holding that possession of such power came within the condemnation of Section 2, stated that, since it is firmly settled that "all contracts fixing prices are uncondi-

tionally prohibited" by the Sherman Act, it would be absurd to construe the statute as not also condemning a monopoly involving "an equal, or even greater, power to fix prices." In further amplifying the view that a monopolist's power over price is essentially the same as the power conferred by price-fixing contracts, the Court said that such contracts "are only steps toward that entire control which monopoly confers: they are really partial monopolies." 148 F. 2d at 427-428.

It is thus established that Section 2 is aimed at possession of monopoly power and that the forbidden power exists if there is *either* power to exclude others from a trade *or* power to fix and control the price of a commodity. It is also established that a showing of violation of the Sherman Act does not require proof of "a specific intent to restrain trade or to build a monopoly". This was specifically held in *United States* v. *Griffith*, 334 U.S. 100, 105, where the Court ruled that acceptance of the district court's findings that the appellees had no intent or purpose to monopolize did not dispose of the question whether they had monopolized trade in violation of Section 2. The Court said (p. 105):

> It is sufficient that a restraint of trade or monopoly results as the consequence of a defendant's conduct or business arrangements. [Citing cases.] To require a greater showing would cripple the Act. As stated in *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 432, "no monopolist monopolizes unconscious of what he is doing." Specific intent

in the sense in which the common law used the term is necessary only where the acts fall short of the results condemned by the Act.

It is likewise settled that, where monopoly power exists, it is no defense that it was attained by lawful means. In *American Tobacco* this Court said that it is not the "form of the combination or the particular means used but the result to be achieved [monopoly power] that the statute condemns." 328 U.S. at 809. This is emphasized by the further statement that it is of no importance "whether the means used to accomplish the unlawful objective are in themselves lawful or unlawful" (*ibid.*) In *Griffith* this Court assumed the correctness of the findings below that the defendants had not resorted to "threats or coercion" and had solely employed "lawful competitive practices", but the Court held that Section 2 might nevertheless have been violated, since "monopoly power, *whether lawfully or unlawfully acquired*, may itself constitute an evil and stand condemned under § 2" [emphasis added]. 334 U.S. at 104, 107.

There remains the question whether possession of monopoly power may, under some circumstances, fall short of being illegal monopolization. In *United States* v. *Standard Oil Co.*, 221 U.S. 1, 62, this Court observed that the statute omits "any direct prohibition against monopoly in the concrete." The implication of a distinction between "monopoly" and the statutory word "monopolize" is developed in certain dicta in the opinion in the

Aluminum case. It was there said that "persons may unwittingly find themselves in possession of a monopoly"; that a market might be so limited that only a plant capable of supplying the entire demand could profitably operate; that one of several "active competitors" might be the sole survivor "merely by virtue of his superior skill, foresight and industry"; and that a strong argument can be made that a monopoly so arising is not condemned by the Act. 148 F. 2d at 429-430.

In the present case it is not necessary, we believe, to pass upon the question of implied exceptions from the statutory prohibitions adumbrated in the *Aluminum* opinion. Du Pont's dominant position in the cellophane trade was not achieved by surviving, because of superior skill and foresight, while "active competitors" were dropping by the way side. The situation rather was, either du Pont was alone in the field or it was alone except for one competitor which, with a minor share of the business and radically inferior resources, was never a challenge to du Pont's dominance—in sum, a classic monopoly situation.

But reliance by du Pont on any implied exception from the monopolization prohibition is removed from consideration on more fundamental grounds. As developed later in Point II C, du Pont achieved monopoly power by trade-restraining and monopolistic agreements which in themselves were unlawful under the Sherman Act, and by means which, at the least, were exclusionary. Under the decisions, it is settled that Section 2 uncondition-

ally prohibits monopoly power achieved either by unlawful conduct or by exclusionary acts and practices.

At least since the decision in *United States* v. *Standard Oil Co.*, 221 U.S. 1, where Sections 1 and 2 of the Sherman Act were declared to be complementary prohibitions, it has been settled that, at the minimum, Section 2 unconditionally prohibits monopoly power achieved by restraints or monopolistic practices which the Sherman Act makes unlawful. This settled construction of Section 2 was recognized and given effect in the *Griffith* case, *supra*, decided in 1948. The Court there said that one who has the only theatre in a town has a monopoly in a popular sense but usually does not violate Section 2 of the Sherman Act "*unless* he has acquired or maintained his strategic position * * * by means of those restraints of trade which are cognizable under § 1" [emphasis added]. 334 U.S. at 106.

Monopoly power achieved, aided or abetted by exclusionary acts or practices tending to limit or prevent competition equally violates Section 2, irrespective of the actual illegality of the exclusionary conduct. In *Griffith* this Court held that monopoly power may be within the ban of Section 2 although it is not "the end product[s] of conduct which violates § 1", and the Court, as previously noted (*supra*, p. 90), said that "monopoly power, whether lawfully or unlawfully acquired", may be prohibited by Section 2. 334 U.S. at 106, 107.

In *United States* v. *United Shoe Machinery Corp.*, 110 F. Supp. 295, 342 (D. Mass.), affirmed, 347 U.S. 521, the court said that the least that the *Griffith* decision means is that it is a violation of Section 2 "for one having effective control of the market to use, or plan to use, any exclusionary practice, even though it is not a technical restraint of trade." In that case the court assumed that the defendant's monopoly power had not been achieved by unlawful means, and decision was rested upon the ground that such power had been maintained by numerous exclusionary practices. 110 F. Supp. at 343-345. Accordingly, the defense that dominance of the trade was attributable solely to its "ability, economies of scale, research, natural advantages, and adaptation to inevitable economic laws" was foreclosed. *Id.*, 343.

A. *Du Pont Had Power to Exclude Competitors When It Desired to Do So*

We submit that on the facts found by the district court, as supplemented by wholly uncontroverted facts, du Pont unquestionably had power to exclude others from manufacture of cellophane in the United States.

When du Pont entered into the cellophane business in 1923, it did so under agreements vesting in it the exclusive right to manufacture cellophane in North and Central America under La Cellophane's secret process, the one existing process for making cellophane on a commercial basis (Figs. 14-15,

18, 24; R. 66-69).[79] It acquired "the entire knowledge gained by La Cellophane as the result of years of research in developing the process" and "all phases" of La Cellophane's "proven production line knowhow" (fng. 33, R. 71). The information thus obtained "was essential to commercial manufacture" of cellophane (fng. 29, R. 70). Du Pont, notwithstanding its great resources, "could not have developed a successful process for cellophane manufacture in less than five to eight years and then only at very substantial cost" (fng. 32, R. 70). "Du Pont has continued to use La Cellophane's basic process" (*ibid.*) and it "still employs the fundamentals of the secret process received from La Cellophane" (fng. 36, R. 71).

La Cellophane had maintained the secrecy of its process "by a system of fences, plant guards, passes", and du Pont, following communication of the process, "used similar means to maintain secrecy of the process and the interior of the plants" (fng. 34, R. 71). Many "key facts" concerning the process were not disclosed prior to World War II (fng. 35, R. 71).

This secret process has been the one employed by companies engaged in cellophane manufacture throughout the world—La Cellophane in France, Kalle in Germany, SIDAC in Belgium, BCL in England, CIL in Canada, du Pont and Sylvania in the United States (*supra*, pp. 14-15, 23-24). The

[79] The illegality of the agreements (initially with La Cellophane and later with others) by which the principal foreign producers of the world were kept out of du Pont territory is discussed *infra*, pp. 114-126.

one other process (Wolff) which has been commercially utilized is "inferior in cost of manufacture and quality of product" (fng. 32, R. 70). A substantial American concern, after thoroughly investigating this process, concluded that it involved "technical obstacles" and "lack of economy", and that it could not be used to compete successfully with the cellophane produced in this country by the La Cellophane process (R. 2734; *supra*, p. 30).

Du Pont not only obtained, as to the North American continent, exclusive dominion over the process which has proved superior to any other. It also obtained for the same area the exclusive right to receive and use all of the subsequent discoveries and technical developments (including processes, apparati, and patents) of La Cellophane, Kalle, and BCL, the latter two being companies licensed by La Cellophane to make and sell cellophane in countries outside of France and North and Central America (*supra*, p. 23). Du Pont's power to exclude therefore rested on (1) exclusive dominion over the superior La Cellophane process and (2) a vast fund of information as to the intricate mechanical and chemical production techniques requisite to successful utilization of this process. This reservoir of essential technical information was acquired by du Pont by its exclusive interchange agreements with the principal foreign cellophane producers; and also by years of practical experience in carrying on its own operations under this secret process, with accompanying expenditure of millions of dollars in research (fng. 83, R. 94).

We submit that power to exclude necessarily flows from such engrossment of a superior secret process and of all related technical information. There is, however, further clinching proof of such power. Continuously from 1924, when du Pont first began making cellophane to the start of trial of the case in 1951, there was extraordinary inducement to undertaking cellophane manufacture in the United States; yet during these 27 years only one company came into the business and it did so by virtue of being able to obtain access to La Cellophane's secret process and its technology.

There was strong inducement to entry into the business because cellophane has been from the outset a "growth" industry, and almost spectacularly so. 1930 production was over 40 times that of the initial year 1924; 1940 production was more than 7 times that of 1930; 1950 production was more than 2⅓ times that of 1940; and in every year during this 27-year period production was above that of the year before, with three exceptions (two of which are not true exceptions). *Supra*, pp. 18-19.

Not only did cellophane production and sales grow rapidly and consistently, but profits remained temptingly high. After the first six years of operation, du Pont purchased the minority stock interest in the cellophane subsidiary at a price per share more than 15 times the price which it had paid when the subsidiary was formed (*supra*, p. 17). This evaluation of past and prospective profits is, by any test, an evaluation of "monopoly profits". In the eleven years preceding the filing of the com-

plaint du Pont's operating return on its cellophane investment averaged over 31% (*supra*, p. 18), and this average rate of return was obtained notwithstanding a steady expansion in dollar volume of sales (fng. 337, R. 165).[71]

Stocking & Mueller, *The Cellophane Case and the New Competition*, 45 American Economic Review 29, 60-63, makes a comparison, pregnant with meaning, between du Pont's rate of return before taxes on its cellophane investment and its rate of return before taxes on its rayon investment.[72] The article states (pp. 62-63):

> From the beginning of the depression in 1929 through the succeeding recovery and the 1938 recession, du Pont averaged 29.6 percent before taxes on its cellophane investment. On its rayon investment it averaged only 6.3 percent.

With these long-continued tempting inducements to entry into the business, Sylvania alone came in. The circumstances which made this pos-

[71] In 1937 du Pont's cellophane sales were $25,054,831; in 1947 they were $55,339,626 (*ibid.*).

[72] The factors referred to as warranting this comparison were that cellophane and rayon both are "radical innovations", that production of both "increased phenomenally", and that both have been characterized by rapid development of technology, reduction in cost, and decline in prices (*id.*, 60-61). The chief difference "significant to the course of profits" was thought to be that in its cellophane business du Pont had "only a single rival" (whose output was "closely geared to du Pont's"), whereas in the case of rayon, which started as a monopoly with respect to domestic manufacture, "rival firms came into the industry promptly", and by 1930 du Pont had 19 rivals (*id.*, 61-62).

sible were that La Cellophane's chief engineer and another official had absconded with "blueprints and complete information as to La Cellophane's secret process" and had founded a Belgian concern, which set up Sylvania as an affiliate, to use this process and information in making cellophane (fngs. 615-618, R. 232-233).

Olin is "a case history" that the door to the industry stood barred until du Pont chose to release the bar, in other words, that du Pont had power to exclude. Olin is a substantial company with present assets of about $180,000,000 (fng. 358, R. 170). It became interested in undertaking cellophane manufacture as early as 1929, spent about $1,000,000 in exploring means to do so, and inspected Wolff's plant in Germany but in 1944, abandoned the effort as fruitless (*supra*, p. 30). When du Pont, after the filing of the present suit and in order to "reduce the hazard" of being adjudged a monopolist,[73] opened the door to entry into the business, Olin eagerly embraced this opportunity although the estimated initial investment required was more than $19,500,000.[74]

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[73] When the Olin officer who first conferred with du Pont about this matter expressed surprise at being shown confidential material, the du Pont representative replied that "as a matter of fact, he didn't have any choice in the matter" (R. 2738).

[74] The contract with du Pont estimated that design and construction work of the new plant would cost $18,000,000 and that training personnel (exclusive of their wages, salaries and expenses) would cost $135,000 (DX-974, art. III(m), R. 5574), and Olin obligated itself to pay du Pont about $1,337,000 (*supra*, p. 29).

Entry into the industry was at the will of du Pont. CIL entered in Canada in 1933 by virtue of being "sub-licensed" by du Pont under the La Cellophane process (fng. 599, R. 228). Olin was able to come into the industry in this country only by virtue of du Pont's invitation. Sylvania's earlier entry was the result of a "theft" occurring in a foreign country (fng. 619, R. 233).

In the face of overwhelming proof of power to exclude the court's finding that this power did not exist is passing strange.[75] The court's finding is all the more baffling in that, in order to establish illegal monopolization, power to exclude *all* competitors need not be shown; it is sufficient to show power to exclude competition "to a substantial extent". *American Tobacco Co.* v. *United States*, 328 U. S. 781, 786, 789, 793, 798.

The established facts show that the power of exclusion vested in du Pont far transcended any power of this kind found to exist in *United States* v. *United Shoe Machinery Corp.*, 110 F. Supp. 295 (D. Mass.), affirmed, 347 U.S. 521. Du Pont has had one domestic competitor; United Shoe had ten (though, concededly, most of them were small), and a measure of competition from foreign manufacturers whose products were admitted to the United States free of tariff duty (*id.*, 339). Du

[75] The most explicit finding reads:

"The record establishes du Pont does not have power to exclude others who would engage in the manufacture and sale of cellophane" (fng. 727, R. 260).

See also findings 356 (R. 170), 729 (R. 260), 731 (R. 261).

Pont has had exclusive dominion over a secret process superior to any other which has been developed, and over the intricate technology requisite to successful operation under this process. United Shoe, on the other hand, was held to be in violation of Section 2 because its maintenance of a dominant position was in significant part traceable to the use of business techniques (particularly, its leasing system) which, although they created no insuperable bar to entry, had deterrent features. *Id.*, 340-341, 343-344.

In the instant case, when we look at the district court's opinion for explanation of the grounds for its conclusion that du Pont lacked power to exclude, we find, first, that the court gave no consideration to the inherent inconsistency between the assumed ability freely to enter the cellophane business and the fact that, in an industry which was constantly expanding and highly profitable, only one company came into the business during a period of 24 years (1924-1947, inclusive), and no company entered the business during the last 18 years preceding the filing of the complaint. See opinion, R. 305-310. We find, second, that the court completely ignored the fact that a substantial company had over a long period of time seriously endeavored to enter the business and had spent about one million dollars to this end, but without success (*supra*, pp. 29-30). We find, third, that the grounds upon which the court based its conclusion of lack of power to exclude do not support this conclusion.

The court initially stated that du Pont does not

have power to "inhibit entry of other companies into the manufacture of the many different types of materials" which constitute the "flexible packaging market" (R. 305). But lack of power to inhibit entry into this so-called market, comprising widely disparate products (*supra*, pp. 43-47), is no indicium of absence of power to exclude competition in the manufacture and sale of cellophane.

The court's second ground was that there is "no proof du Pont has any corner on raw materials necessary for manufacture of cellophane" (R. 305). Preemption of necessary raw materials is but one of many means by which power to control entry into a business may be maintained. Failure to possess this particular means of exclusion obviously does not negative possession of power to exclude. The defendants in *American Tobacco* and *United Shoe Machinery* had not preempted necessary raw materials.

The court next concluded that du Pont does not have technological control which would enable it to exclude others from making cellophane (R. 305). As grounds for this conclusion the court stated that Sylvania has been able to produce cellophane "without any technical assistance from du Pont", that Olin "has its own technical facilities and has been engaging in important research in fields pertaining to cellophane", and that companies throughout the world are engaged in cellophane manufacture "without any assistance from du Pont". These statements are grossly and palpably incomplete, and totally conceal the facts of

real significance: that Sylvania came into the business by virtue of comprehensive technical disclosure and assistance, not available to any other newcomer; that Olin came in, and was able to come in, only when du Pont supplied it with full technical information and assistance; that the principal foreign manufacturers (except Wolff) have operated under the secret La Cellophane process pursuant to license from La Cellophane or du Pont, except that SIDAC's "complete information" concerning this process had been obtained by theft.

The court, in the same connection, stated that all of du Pont's cellophane patents "are available for licensing at reasonable royalties" and that these patents "will not bar others" from engaging in cellophane manufacture. Since the charge in this case is monopolization up to the time of the filing of the complaint, it is the patent situation in that period which is relevant. But the court undertook to describe the present or future patent situation, and failed to mention that in the relevant past period the situation was totally different. Du Pont's cellophane patents were not then "available for licensing at reasonable royalties". They did not become so available until 1948 when, following expiration of its original moistureproof patents, it placed its cellophane patents on the United States Patent Register (R. 2598).[76] In the past, according to the court's own finding, a du Pont patent did

[76] The reference is to testimony of a du Pont witness, the chief of its Patent Service Section (R. 2586). See also finding 732 (R. 261).

"bar others" from making moistureproof cellophane. The court found that during the period 1929-1946 "it was not possible to manufacture moistureproof cellophane in the United States without infringing" du Pont's moistureproof product patent (fng. 480, R. 197).[77]

The court's further statements that particular companies have not been excluded, since anyhow they had not wanted to go into the cellophane business (R. 306-308), and that Sylvania had come in and survived (R. 309-310), are beside the point. In order to establish illegal monopolization, it is not necessary to show actual exclusion of competitors or power to exclude all competitors. *American Tobacco* case, 328 U.S. at 789, 809.

The court even went so far as to declare: "Evidence shows cellophane competition has not in fact been excluded, but flourished" (R. 309). Du Pont's district court brief (p. 67) also stoutly asserted that "the evidence shows that cellophane competition has not in fact been excluded, but actually flourishes."

We submit that the court's finding of lack of power to exclude is clearly erroneous, and that

[77] Irrespective of whether this patent, whose validity has never been adjudicated, *supra*, p. 33), would have survived the test of litigation, on the court's finding any manufacturer of moistureproof cellophane would have infringed and would have had to defend a costly patent infringement suit prosecuted by du Pont. This in itself would be a serious bar to undertaking such manufacture. And any such bar would apply to the type of cellophane which constituted, during the five years prior to the filing of the complaint, over 86% of total cellophane production (fng. 336, R. 164).

the undisputed facts establish existence of such power. As to specific purpose to exclude, where the charge is monopolization, liability is established by showing conduct calculated to achieve the result condemned by the Act; no showing of specific intent in the sense in which the common law used this term is required. *United States* v. *Griffith*, 334 U.S. 100, 105-106. Possession of power "to exclude competition when it is desired to do so" is the test for determining whether trade has been illegally monopolized. *American Tobacco* case, at 811.

In any event, du Pont's purpose to acquire and maintain power to exclude is also manifest. This purpose appears on the face of its 1923 agreements with La Cellophane granting to du Pont the exclusive right to make and sell in North and Central America under La Cellophane's secret process (fng. 24, R. 68-69), an exclusive right which embraced all technical information subsequently acquired by La Cellophane (*supra*, pp. 20-22). Du Pont's purpose to maintain power to exclude is also shown by the exclusive territorial limitations embodied in its technical exchange agreements with foreign cellophane producers (*supra*, pp. 23-24), and by its action in confining CIL to manufacture and sale solely in Canada (fng. 599, R. 228). The purpose is further shown by the mutual prohibitions against disclosure incorporated in the technical exchange agreements with foreign producers.[78] Du Pont likewise manifested this pur-

[78] GX-1001, par. 12 (R. 3253); GX-1087, par. 5 (R. 3289); GX-1109, par. 5 (R. 3299).

pose when, in supplying certain companies for due consideration technical information or patents relating to cellophane manufacture, it carefully barred use of such information or patents for making cellophane.[79]

In sum, the findings and the uncontroverted evidence establish that du Pont had power to exclude competition, unless the relevant market be defined (erroneously, in our view) to include flexible packaging materials generally.

B. *Du Pont Had Power to Raise and Control the Price of Cellophane*

Du Pont proposed, and the district court made, 854 findings, some of them detailed and others general, yet no finding was either proposed or made that du Pont lacked power to raise and control the price of cellophane. We submit that in the circumstances the absence of this finding is a virtual recognition that the evidence established power on the part of du Pont to control the price of cellophane. In any event, under the findings which were made, there can be no doubt that it had this power.

In the period 1924-1929 when du Pont was the sole domestic producer, it could and did sell at prices generally above the prices of importers, who could not match du Pont either in quality of product or in customer service (fng. 636; R. 238-239). At

[79] GX-4008, art. XV (R. 3462); fng. 369 (R. 172).

the same time du Pont obtained 80% of total domestic sales (fng. 620, R. 237), steadily increased its dollar sales (fng. 337, R. 165), and had truly extraordinary profits (*supra*, p. 17). Absent a 100% monopoly, there could hardly be more compelling proof of power over price than these combined factors—monopoly of domestic production, capture of 80% of the business, "monopoly profits," and maintenance of its own price above that at which imports were sold.

After 1929 imports all but dried up in the face of radically higher customs duties (*supra*, p. 16), and Sylvania became a domestic producer. Subsequent to 1929, du Pont's power to fix the price of cellophane is not a matter of inference; the price of cellophane *was* the price which du Pont fixed. The one competitor, Sylvania, at all times adopted du Pont's prices as its own (fngs. 587-8, R. 225). Nor did Sylvania even potentially limit, to any appreciable degree, the power over price exercised by du Pont. As found by the court, its product was inferior in quality, it offered fewer specialized types of cellophane, and it was also far inferior to du Pont in the services offered customers (*supra*, p. 31). Furthermore, during the long period from 1930 to 1946 its resources were less than 2% of du Pont's (*supra*, pp. 31-32), and its share of the business remained substantially uniform at 25% (*supra*, p. 30).

Notwithstanding the fact that year after year du Pont, and du Pont alone, fixed the price of

cellophane, the district court concluded that du Pont's power over price was not the kind of power possession of which constitutes illegal monopolization. The court's view was that, because du Pont's power over the price of cellophane was subject to an undefined and undefinable limitation by reason of the availability of lower-priced paper products used as flexible packaging materials, du Pont did not have the degree of power over price outlawed by the statute. Both the court's findings and its opinion rest on its interpretation of the statutory prohibition, an interpretation which we believe to be patently erroneous.

The court found (fng. 721, R. 259): "Du Pont does not have power to fix and maintain *arbitrary* and *non-competitive* terms of sale" [emphasis added]. What the court meant by "arbitrary" and "non-competitive" is disclosed by the remaining sentence of the finding: "Terms at which du Pont cellophane is sold must meet customs and requirements of the flexible packaging trade." Finding 712 (R. 257) similarly states: "Du Pont has no power to set cellophane prices *arbitrarily*" [emphasis added]. The balance of the finding, in effect, defines the word "arbitrarily". The court there found that if cellophane prices increase "in relation to prices of other flexible packaging materials", du Pont will lose business to manufacturers of such materials, and that relative increases in cellophane prices "would make competition more difficult to obtain new business".

The court's opinion sets forth the same rationale.[80] At the outset of its consideration of du Pont's power over price, the court stated that power "arbitrarily" to raise prices is "the test to be applied in adjudicating monopolization" (R. 300). The court then said (*ibid.*): "Under market conditions which have prevailed, du Pont does not possess power to raise cellophane prices without regard for competitive pressures. The market would penalize any attempt to do so with lower sales and smaller profits." As support for this conclusion, the court said that cellophane "has been sold at price disadvantage", and that it costs more per square inch than glassine and waxed paper, "the two principal packaging materials" (*ibid.*).

There are other comparable statements in the opinion. "Competitive influences", the court said, "place limitations upon du Pont's pricing policies", and "deny it power to raise prices in the manner of a monopolist" (R. 302); if prices of other flexible packaging materials "determine du Pont's price, then to that degree du Pont does not have monopoly power" (R. 303).

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[80] A heading of the opinion reads: "Du Pont Has Not 'Power To Raise Cellophane Prices'" (R. 300), but in the text of the opinion no such unqualified statement is made. The closest approximations are: "Plaintiff was not able to advance convincing evidence power to raise prices exists" (R. 302); "The prices du Pont charged were prices which it was obliged to charge as a result of the competitive conditions in the market" (R. 303).

The Court's view that du Pont's power to fix cellophane prices did not give it pricing power of a kind forbidden by the statute, because some remote and indirect limitation on such power might result from the availability of lower-priced glassine and waxed paper, is an application of the court's erroneous conclusion that the flexible packaging materials market is the relevant market for determining du Pont's possession of monopoly power over trade and commerce in cellophane. See, generally, Point I, *supra*, pp. 64-86. Since there are substitutes for practically every product (*supra*, p. 69), and since glassine and waxed paper differ widely from cellophane in both price and inherent characteristics (*supra*, pp. 78-79), the holding by the court that their availability negatives possession of monopoly power over cellophane prices is tantamount to saying that such power can never exist in an advanced industrial economy. If the decision is correct, this aspect of the statute is, in practical effect, a nullity.

There has been phenomenal growth in cellophane production and sales notwithstanding existence of substitutes selling at one-half or less cellophane's price. This could have been achieved only if, as to a vast volume of trade, cellophane's composite characteristics rendered it superior to the lower-priced substitutes. Such superiority necessarily conferred upon the monopolist of cellophane a wide range within which to fix cellophane's price at the point which would yield the greatest profit. Du

Pont thus had the power to establish either relatively high cellophane prices (with high per-unit profit and relatively small sales volume) or lower cellophane prices (with lower per-unit profit and larger sales volume).[81] Du Pont, having power to fix cellophane prices at the point at which the ratio between price and sales volume would return the greatest long-run profit, had the very essence of monopoly power over price. This power was subject to no "competitive pressures" from other cellophane producers. We submit that, under the statute, these are the only relevant competitive pressures, and that the court accordingly misapplied the statute when it held that "du Pont does not possess power to raise cellophane prices without regard for competitive pressures" (R. 300).

We submit that another, although less important, error made by the court was in assuming that, if du Pont raised cellophane prices, the market would "penalize" such action "with lower sales and smaller profits" (R. 300). There probably would be the penalty of "lower sales" but there might or might not be the penalty of "smaller profits". What happened in the cigarette industry in the early 1930's showed that lower sales and larger profits may go hand in hand. In *American Tobacco Co. v. United States*, 328 U.S. 781, 805-806, this Court stated that the defendants had raised their prices in 1931 during "one of the worst

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[81] Since increased sales and production ordinarily result in lower per-unit manufacturing cost, a lower price will not ordinarily bring about an equal drop in per-unit profit.

years of financial and economic depression in the history of the country"; that the price increase "soon resulted in higher retail prices and in a loss in volume of sales"; that nevertheless in 1932, with sales "falling off greatly in number", the defendants made "tremendous profits as a result of the price increase", so that the year was, from a profit standpoint, "one of the three biggest years in their history."

Nor can it be supposed that, because du Pont decided over the years to effect various price reductions in the interest of increasing sales and maximizing profits, prices might not have gone appreciably lower in the presence of effective cellophane competition. What Judge Learned Hand said in the *Aluminum* case in relation to operations of a company whose relevant rate of return was far lower than du Pont's return on cellophane applies, *a fortiori*, here: "[There] is no evidence that a 'fair' profit could not have been made at lower prices." 148 F. 2d at 427.

The statements in the court's opinion (R. 301) that there "is no cellophane, glassine or wax paper price" and that there are "many types of du Pont cellophane, selling at prices from $.45 per lb. to $.85" are misleading. The fact is that du Pont's total 1947 sales of moistureproof cellophane was $17,598,053 (fig. 337, R. 165), and $35,743,253 of such sales, or over 75%, were sold at the same price, namely, 41¢ per pound prior to October 1, 1947, and 44¢ per pound after the price change made

on that date, as shown in the table below.[82] There was therefore a single price for three-fourths of du Pont's 1947 moisture proof sales, which were over 80% of its total 1947 sales.[83] It is, moreover, striking that, as to the types of moistureproof cellophane sold at a single price (41¢ for nine months of 1947 and 44¢ for three months), the average price for the year would be 41.75¢ (assuming uniform monthly sales volume), and that the "average" price per pound received by du Pont on its total 1947 cellophane sales was 41.9¢ (fng. 126, R. 106), or almost the same figure.

We also submit that the district court's statement that du Pont sells cellophane at prices ranging

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[82] *Du Pont's 1947 Dollar Sales of Types of Moistureproof Cellophane Identically Priced**

	Dollar Sales	*Price Per Pound*	*Eff. 10/1*
300 LST	$ 767,626	41	44
300 MT	98,599	41	44
" " 31	8,884,646	41	44
" " 32	827,722	41	44
" " 33	199,874	41	44
" " 35	743,435	41	44
300 MST	1,008,714	41	44
" " 50	190,830	41	44
" " 51	7,146,525	41	44
" " 52	7,919,401	41	44
" " 53	4,759,718	41	44
" " 54	680,112	41	44
" " 54G	5,040	41	44
" " 58	2,164,674	41	44
300 MSDT	346,337	41	44
Total	$35,743,253		

* Identification of types (GX-396, R. 3588-9), dollar sales (*id.*, R. 3591-5), price (*id.*, R. 3596-8).

[83] In 1947 du Pont's moistureproof sales were $47,598,053 and its total sales were $55,339,626 (fng. 337, R. 165).

from 45¢ to 85¢ per pound is practically meaningless in view of the negligible sales at the top price. Prices for the year 1949 are the basis for the statement (GX-396, R. 3595-8). In that year only one type of cellophane (MSAC-82 Tango) sold at 85¢ (*ibid.*), and the sales of this type were $3,228 (*id.*, R. 3594). Since du Pont's 1949 cellophane sales were $85,936,478 (fng. 337, R. 165), sales at the top price were less than four-one thousandths of one percent of total sales. In addition, the fact that the average price received by du Pont per pound of cellophane sold in that year was 48.3¢ (fng. 126, R. 106) establishes that the vast bulk of its sales were at prices close to the bottom price (45¢) stated by the court. The record shows, in short, that the principal types of cellophane were priced within a narrow range, and that the principal types of glassine and waxed paper were priced in a markedly different range.[84]

The court's conclusion that du Pont lacked power to control price is explicable only in terms of its fundamental assumption that the appropriate frame of reference is, not the cellophane trade, but that agglomerate trade represented by disparate wrapping materials.

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[84] 1949 average wholesale prices per pound were: for moisture-proof cellophane (300 MST-51) 47.8¢; for plain cellophane (300 PT) 44.8¢, for "bleached glassine: 25# 17.8¢ (fng. 130, R. 106-107), the prices stated being those for the "principal standard" type or grade of the various products included in DX-994 (R. 5630), DX-995 (R. 5634), and finding 130 (R. 107). Waxed paper prices run slightly below those for glassine (DX-994, R. 5630).

C. *Du Pont's Monopoly Power May Not Escape the Prohibitions of the Act Since it was Achieved and Maintained by Contracts and Agreements which in Themselves were Illegal or, at the Least, Exclusionary.*

1. *The Initial Agreement with La Cellophane Illegally Restrained Trade and Was Exclusionary.*

The basic 1923 agreement with La Cellophane under which du Pont undertook manufacture of cellophane provided for a division of territories. Du Pont was given "the exclusive right to manufacture cellophane in North and Central America," and was granted such right as to every process for making cellophane owned by La Cellophane or thereafter acquired by it (GX-1001, par. 9, R. 3251-2). La Cellophane agreed that after July 31, 1923, it would not "market, sell, or in any manner offer for sale, either directly, or through any agency, except Du Pont Cellophane Company, Inc., any cellophane" within du Pont's exclusive territory (*id.*, par. 10, R. 3252). La Cellophane also agreed that it would not prior to December 31, 1935 (or for a period of more than twelve years) engage in, or become directly or indirectly interested in any other company engaged in, "the manufacture of cellophane" in North or Central America (*id.*, par. 11, R. 3252-3).[85] The rest of

[85] It should be noted that La Cellophane's commitment not to sell or manufacture in du Pont's territory applied to cellophane whatever the process used in making it. The commitment was not confined to cellophane made pursuant to La Cellophane's existing process.

the world was La Cellophane's exclusive territory so far as du Pont was concerned; du Pont was barred from manufacture or sale outside the territory reserved exclusively to it.[58]

The district court recognized, as the evidence compelled it to recognize, that the parties formed a cartel providing for a territorial division of production and sales. The court summarily disposed of the matter, in these words: "Plaintiff's argument a territorially limited license under a secret process is *per se* illegal is not accepted" (R. 319). We submit that the law is otherwise.

This Court has consistently held that agreements to allocate or divide markets are illegal *per se*. *Timken Roller Bearing Co.* v. *United States*, 341 U.S. 593, 596-599; *United States* v. *National Lead Co.*, 63 F. Supp. 513 (S.D. N.Y.), affirmed, 332 U.S. 319; *Apex Hosiery Co.* v. *Leader*, 310 U.S. 469, 497; *United States* v. *American Tobacco Co.*, 221 U.S. 106, 182; *Addyston Pipe & Steel Co.* v. *United States*, 175 U.S. 211, 241. See also *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 439-445, 447-448 (C.A. 2).

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[58] It was the understanding and agreement of the parties that the grant to du Pont of an "exclusive license" in specified territory prohibited it from making or selling cellophane elsewhere. When La Cellophane breached the basic 1923 agreement by acquiring an indirect interest in Sylvania, the compensation which du Pont sought was to obtain from La Cellophane "a non-exclusive license for additional territories" (fng. 620, R. 234), and the compensation which was agreed upon after negotiations was that du Pont should have "equal rights with La Cellophane in Japan and South America" (GX-1015, R. 3269; fng. 621, R. 234).

The district court said that "it is not illegal per se for competitors to combine their resources in a manufacturing joint venture to exploit a particular product or a particular market," and that it is "lawful for an American and a French concern who are not competitors to combine their resources in a joint venture absent an overriding unlawful purpose" (R. 320).[87] The court elsewhere referred to the organization of Du Pont Cellophane as a "partnership" for the manufacture of cellophane in the United States (R. 318). The court thus erroneously assumed that the question in issue was the legality of the joint organization and ownership of Du Pont Cellophane, not the legality of the agreement to divide markets. On the contrary, the joint venture aspect of what was done is relevant only if, and to the extent that, an agreement which violates the Sherman Act because it provides for allocating markets is saved from illegality provided it is incident to a joint venture. *Timken Roller Bearing Co.* v. *United States*, 341 U.S. 593, presented this precise point, and the holding was that an agreement allocating trade territories incident to an otherwise legitimate "joint venture" violates the Sherman Act.

In *Timken* the violation of the Sherman Act consisted in agreements under which the parties thereto—an American, a British, and a French

[87] The quoted statements are taken verbatim from du Pont's district court brief (pp. 100-101), with omission of one adjective and change of "in the absence of" to "absent."

ompany had "allocated trade territories among themselves." [88] 341 U.S. at 596. The underlying facts, as set forth in the opinion of the district court, [89] were as follows: In 1927 the defendant American company and one Dewar, an English businessman, acquired all the stock of British Timken, each acquiring about 50%. Shortly thereafter the American company and British Timken entered into 10-year agreements which divided the world into respective exclusive territories for manufacture and sale of tapered antifriction bearings. In 1928 Dewar, with the consent and cooperation of the American company, organized French Timken, all of whose stock was issued to and thereafter owned by the American company and British Timken. British Timken and French Timken thereupon entered into an agreement which allocated to the latter certain areas as its exclusive manufacturing and sales territory. These trade-allocating agreements, as modified and extended, were in ef-

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[88] The Court also said that the parties "(2) fixed prices on products of one sold in the territory of the others; (3) cooperated to protect each other's markets and to eliminate outside competition; and (4) participated in cartels to restrict imports to, and exports from, the United States" (*ibid.*). But (2) and (3) involve merely implementation of allocation of trade territories, and (4) merely specifies effects of such allocation. Mr. Justice Reed's concurring opinion stated that "there were no findings of facts tending to show violation of the Sherman Act otherwise than through formal agreements for partition of territory." 341 U.S. at 604.

[89] *United States v. Timken Roller Bearing Co.*, 83 F. Supp. 284, 292-294 (N.D. Ohio).

fect when the Government filed its complaint in 1947.

This Court held that the trade restraints resulting from the foregoing agreements "are illegal under the Act", and therefore violated it even if they were merely incidental to an otherwise legitimate joint venture. 341 U.S. at 597-598. The Court found no support in reason or authority for the proposition that agreements between legally separate companies to suppress competition among themselves "can be justified by labeling the project a 'joint venture'." *Id.*, 598. The Court pointedly added that perhaps every agreement to restrain trade could be so labeled. The district court's opinion in the present case does not cite the *Timken* decision.

The district court also said that restraints imposed by the allocation of trade territories were reasonably ancillary to assignment of a trade secret, and hence not in violation of the Sherman Act (R. 319-320).[99] Aside from other difficulties with this defense, it is disposed of by the decision in *Timken*. There the defendant urged that the

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[99] The court, in emphasizing the importance of what La Cellophane transferred, said that it had the "only existing commercial process" for making cellophane; that its process was of "high commercial value" and "essential to" cellophane manufacture; and that "even today, almost thirty years later, [it] is at the core of du Pont's processes for the manufacture of cellophane" (R. 319).

It is interesting to observe that these statements bear evidence to the monopoly power given du Pont by grant of exclusive rights under the La Cellophane process.

agreement of the parties to stay out of each other's territory was "reasonably ancillary to the sale of the know-how under the contracts," and was recompense for the defendant's "contribution to the foreign companies" of "advice and instruction in the manufacture of bearings, * * * and information with respect to inventions, discoveries and practices whether patented or not." 83 F. Supp. at 312. The district court, in rejecting this contention, said that, while a person is entitled to be compensated for aid so furnished, he may not "exact as a price for such contribution, complete freedom from competition." *Id.*, 313. The court said further (*ibid.*): "The quid pro quo for furnishing of know-how cannot be an absolute license to avoid the provisions of the Sherman Act." This Court, in affirming the holding that the Act had been violated, considered and rejected a further ancillary-restraint defense, namely, that the restraints to which the defendant was a party could "be justified as reasonable steps taken to implement a valid trademark licensing system". 341 U.S. at 598-599.

The instant case, unlike *Timken*, involved transfer of a secret process. But we submit that the nature of the "property" transferred from one party to another does not change the controlling principle, namely, that a forthright agreement not to compete does not escape the ban of the Sherman Act by showing that it was ancillary to something of value contributed or transferred by one of the parties to another.

Even if it be assumed *arguendo* that the principle of the *Timken* decision is not controlling and that the ancillary restraint doctrine may, under some circumstances, be a defense in a Sherman Act proceeding to an agreement not to compete (although this Court has never so held), the present case is not within the doctrine's established limits.

The doctrine receives its fullest elaboration in the opinion of then Circuit Judge Taft in *United States* v. *Addyston Pipe & Steel Co.*, 85 Fed. 271 (C.A. 6), affirmed, 175 U.S. 211. The opinion declares that a covenant in partial restraint of trade ancillary to a contract's main lawful purpose was valid at common law, but that if the restraint "exceeds the necessity presented by the main purpose of the contract, it is void". 85 Fed. 282. Thus, on the sale of a business, restraint on competition by the seller may be no greater than that reasonably necessary to prevent the seller from re-entering the same business and thus partially destroying the value of what he had sold. Restriction on such action by the seller was, however, valid at common law only if the restriction was reasonable both in its duration and in its territorial scope.

A territorial restraint dividing the world in two parts can scarcely be justified as a partial and ancillary restraint reasonably necessary to the protection of the "infant" vendee. So far as duration is concerned, the bar against competition embodied in the du Pont-La Cellophane 1923 agreement cannot, by any test, be deemed reasonable; indeed, the bar against sale by du Pont in La Cellophane ter-

ritory and against sale by La Cellophane in du Pont territory was without time limitation.[91]

The mutual covenants not to invade each other's exclusive territory remained in effect for more than seventeen years although long prior thereto du Pont's sales volume had far surpassed anything originally contemplated by the parties and its earnings had been such as to be at least in the zone of "monopoly profits". The circumstances under which du Pont, in October 1940, sent letters to La Cellophane, Kalle, BCL and CIL cancelling territorial restrictions upon the "sale" of cellophane are also not without significance.[92] The letters stated that the cancellation was prompted by "legal developments in this country", an obvious euphemism for the antitrust laws, and at the time the sales restrictions were cancelled the war in which England, France, and Germany were engaged foreclosed, for the indefinite future, cellophane exports from these countries.[93]

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[91] La Cellophane's agreement not to engage, directly or indirectly, in the manufacture of cellophane in this country for a period of more than twelve years also went beyond any period reasonably necessary for the protection of an "infant" industry.

[92] GX-1273-1276, R. 3323-6.

While du Pont stated that "we construe" the agreements as imposing no territorial restrictions on sales, in fact there was no question of construction of the agreements. They specifically barred the foreign companies from selling in the United States (*supra*, pp. 20-23), and du Pont's letters made no reference to any contract provision which would make this bar doubtful or ambiguous.

[93] Since du Pont and an English company (Imperial Chemicals Industries, Ltd.) each owned 42% of the stock of the Canadian company, CIL (fng. 597, R. 227), and since this

Finally, the cartel agreement with La Cellophane, irrespective of its illegality, was in express terms exclusionary. The agreement unconditionally banned, within du Pont's exclusive territory, competition by La Cellophane and any licensee thereof. In *United Shoe Machinery*, practices merely tending to prevent or limit competition were held to show that the defendant's trade domination constituted illegal monopolization. 110 F. Supp. at 343-345. *A fortiori*, du Pont's monopoly power, achieved by and grounded on an agreement specifically excluding competitors, constituted illegal monopolization.

2. *The Technical Interchange Agreements with Foreign Cellophane Producers also Illegally Restrained Trade and were Exclusionary*

The agreement between du Pont and La Cellophane under which DuPont Cellophane was organized, with du Pont having 52% and the French interests 48% of its stock, provided that the new company and La Cellophane should enter into a technical interchange agreement, and that the obligations imposed upon La Cellophane by such

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English company was closely allied with du Pont (GX-1143, R. 3305-20; *supra*, p. 24, note 26), cancellation of the territorial sales restrictions imposed by du Pont's agreement with CIL would appear to be little more than a gesture. And du Pont's total cellophane exports to Canada during the seven years following cancellation of sales restrictions (1941-1947) were less than 2,000 pounds, during which period its cellophane exports to Brazil were well in excess of 4,000,000 pounds, and its exports to Mexico in the single year 1947 were close to 1,500,000 pounds (GX-399, R. 3599-3600).

agreement should not be affected by sale by the French interests of their DuPont Cellophane stock (GX-1001, par. 12, R. 3253). Accordingly, La Cellophane and DuPont Cellophane entered into a technical interchange agreement on December 26, 1923 (GX-1002, R. 3257-60). By this contract each party agreed to grant the other the exclusive right to use, within the territory of the grantee, all of the grantor's future technology related to cellophane manufacture.[94] The obligation thus to convey information concerning, and exclusive territorial rights to the use of, every technological development was without limitation in time.[95]

The December 1923 agreement provided that if La Cellophane licensed any company to manufacture cellophane in any country outside of France and North and Central America, such licensee should be entitled to the rights, patents, and information received by La Cellophane from du Pont, subject to the condition that the company agree

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[94] La Cellophane agreed "to assign and transfer to duPont Cellophane Company, Inc., without charge, the entire right, title and interest, in so far as all countries in North America and Central America are concerned, in and to any rights, trademarks, patents, patent rights, processes and apparati that may hereafter be discovered, invented or developed by them, or any of them [La Cellophane and its associates], having to do with cellophane or the processes or apparati for manufacturing or using it" (*id.*, par. 3rd, R. 3258). DuPont Cellophane's reciprocal obligation to La Cellophane is stated in the same language (*id.*, par. 4th, R. 3259).

[95] In 1929, following sale to du Pont of the French stockholdings in DuPont Cellophane, du Pont and La Cellophane entered into a contract expressly declaring that these reciprocal obligations shall continue "in full force and effect" (GX-1003, R. 3264).

to furnish du Pont, free of charge, "corresponding rights and information, etc." (*id.*, par. 6th; R. 3259-60). After La Cellophane had thus licensed Kalle and BCL, du Pont entered into agreements with them providing for direct interchange of technical information for use solely in "the countries specifically covered by their respective licenses" (fng. 596, R. 227; fng. 602, R. 228). Each agreement was to remain in effect for twenty years and, upon termination, all rights or licenses previously granted thereunder were to "remain in full force".[96] Each provided that all data received pursuant to its provisions "shall be treated as confidential and shall not be disclosed to any person".[97] And the BCL agreement expressly provided that, as to any matter protected by patent in the country of use, the other party should be entitled to "the exclusive right to make, use and exercise the invention" (GX-1109, par. 4, R. 3298).[98]

The technical interchange agreements were incidental to and in effectuation of allocation of trade territories. The basic interchange agreement with La Cellophane was an integral part of du Pont's trade allocation agreement with La Cellophane. The later interchange agreements were the product of the initial trade allocation agreement, and furthered it by permitting use of the exchanged in-

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[96] GX-1087, par. 10; R. 3290-1; GX-1109, par. 9, R. 3300-1.

[97] GX-1087, par. 5, R. 3289; GX-1109, par. 5, R. 3299.

[98] Du Pont also had a technical interchange agreement containing territorial restrictions with its Canadian "sublicensee," CIL, *supra*, p. 24.

formation only within the exchangee's "exclusive" territory. The La Cellophane interchange agreement was unlimited in time; the others were of twenty years' duration.

By the agreements, persons who dominated world trade created a common pool of all of their future inventions, discoveries and technical developments, and denied to others access to any part of what went into the common pool. This preemption, by combination, of what was of great value, if not essential, to successful manufacture of cellophane, operated as a bar to entry into the business and served to maintain for each party a monopoly within specified territory. We submit that agreements having such trade-restraining and monopolistic effects clearly are forbidden by the Sherman Act.

The facts bring the matter within the decision in *United States* v. *National Lead Company*, 63 F. Supp. 513 (S.D. N.Y.), affirmed, 332 U.S. 319. One of the questions presented in that case was whether a contract between National Lead and du Pont, by which they agreed to a non-exclusive exchange of all future patents and know-how, violated the anti-trust laws independently of its relation to the international cartel which the evidence established. The district court, in holding that the exchange agreement did violate the Sherman Act irrespective of whether it was tied to the international cartel, said (63 F.Supp. at 532):

> * * * in the context of the present case, * * * this exchange between two corporations, who

> between them controlled the entire market, becomes an instrument of restraint, available for use and used, to continue the mastery of the market which NL [National Lead] and DP [du Pont] achieved by means of the illegal international agreements.

This Court, in affirming the decision that du Pont had violated Section 1 of the Sherman Act, quoted and relied on the above excerpt from the district court's opinion. 332 U. S. at 328.

The preemption of new inventions and technology effected by the interchange agreements also was at least as exclusionary as the business techniques employed by the defendant in *United States* v. *United Shoe Machinery Corp.*, 110 F. Supp. 295, affirmed, 347 U. S. 521.

3. *Du Pont's Cross-Licensing Agreement with Sylvania was in Illegal Restraint of Trade and Exclusionary*

The 1933 agreement between du Pont and Sylvania, which licensed Sylvania under du Pont's moistureproof patents, gave each party the right to an exclusive [99] license under any moistureproof cellophane patent acquired by the other prior to October 6, 1948, and the license ran for the life of any patent so licensed if either party had commer-

[99] The original provision was that a patent licensed under the agreement could not be licensed to a third party without the written consent of both parties (GX-2487, par. 17, R. 3398). By amendment in 1938, this provision was eliminated and licenses under the agreement were, in terms, made exclusive (GX-2488, R. 3409-11).

cially used it prior to October 6, 1948.[100] See *supra*, p. 35. The agreement therefore provided for grant of exclusive patent rights extending beyond, and possibly far beyond, du Pont's existing moistureproof patents. Neither party alone had the right to terminate the agreement but there was an option to cancel upon bankruptcy or insolvency of the other party (GX-2487, par. 26, R. 3403).[101]

By this agreement, du Pont obtained the right to exclude third persons from use of any patentable moistureproof invention made during the next fifteen years by the sole other domestic cellophane producer, and such exclusion might run to 1965 although du Pont's moistureproof product patent ran only to November 26, 1946 (*supra*, p. 34).[102] In the words of the district court in *National Lead* (quoted *supra*, pp. 125-126), this agreement between two companies, who together "controlled the entire market," became "an instrument of restraint"

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[100] Other provisions of the agreement were: Neither party would contest, directly or indirectly, the validity of a licensed patent (GX-2487, par. 22, R. 3400-1). The licensee was not obligated to operate under a licensed patent (*id.*, par. 4, R. 3385), and a royalty was payable only if the licensee used a licensed patent (*id.*, pars. 8-9, R. 3387-90). Any invention which, if patented, would be subject to license should, on the other party's demand, be disclosed to it (*id.*, par. 23, R. 3401).

[101] The agreement and all licenses issued under it was terminated by mutual consent on January 1, 1945 (GX-2737, R. 3434), when the parties entered into a new cross-licensing agreement which did not provide for licensing of future patents (fng. 581, R. 223-224).

[102] Under the 1933 agreement, du Pont took licenses under nine Sylvania patents, thus obtaining the right to prevent third parties from using them, although du Pont itself never used any of these nine patents (fng. 558, R. 218).

available for use "to continue the mastery of the market" which du Pont had already achieved by means of "illegal international agreements".

In *Transparent-Wrap Machine Corp.* v. *Stokes & Smith Co.*, 329 U. S. 637, this Court held that the holder of patents on a machine does not go beyond rights given by patent law merely by incorporating in an exclusive license of these patents a requirement that the licensee assign to him any improvement patent invented by the licensee during the period of his license. But the Court, recognizing that a "patent may be so used as to violate the anti-trust laws," and that "use of a condition or covenant in a patent license that the licensee will assign improvement patents may give rise to violations of the anti-trust laws," remanded the case to the court of appeals to determine whether in the particular case the assignment requirement resulted in such violation. 329 U. S. at 647-648. The Court set forth considerations relevant in making this determination as follows (pp. 646-647):

> He who acquires two patents acquires a double monopoly. As patents are added to patents a whole industry may be regimented. The owner of a basic patent might thus perpetuate his control over an industry long after the basic patent expired. Competitors might be eliminated and an industrial monopoly perfected and maintained. Through the use of patent pools or multiple licensing agreements the fruits of invention of an entire industry might

be systematically funneled into the hands of the original patentee.

In *United States* v. *General Electric Co.*, 80 F. Supp. 989 (S.D. N.Y.), the holder of product patents, which had been used to dominate the entire trade in the patented product, required its licensees to give it non-exclusive, royalty-free licenses under any patents relating to the patented product which the licensees might subsequently acquire. See 80 F. Supp. at 993, 1005. The court, relying on the decisions in both *National Lead* and *Transparent-Wrap*, *supra*, held that this was one of several "specific illegal practices" disclosed by the evidence. *Id.*, 1004, 1005-6. The court said (*id.*, 1006):

> The employment of basic patents, or patents which may be basic, to compel the transfer of future patent rights, is condemned per se, when practiced on a scale such as is found in this suit.

See also *United States* v. *U. S. Gypsum Co.*, 340 U. S. 76, 94; *United States* v. *General Electric Co.*, 115 F. Supp. 835, 847 (D. N.J.); *United States* v. *Aluminum Co. of America*, 91 F. Supp. 333, 409-410 (S.D. N.Y.).

Another aspect of the du Pont-Sylvania agreement requires the conclusion that it was exclusionary. The agreement obligated Sylvania to pay a prohibitive additional "royalty" on its sales of moistureproof cellophane in excess of stated per-

centages of du Pont's and Sylvania's combined moistureproof production (20% in 1933 and 1% additional per year up to a maximum of 29%). *Supra*, p. 36.

This limitation on Sylvania's share of moistureproof cellophane production was nakedly anti-competitive in effect and purpose. It was incorporated in the agreement after Sylvania had rejected du Pont's proposal that Sylvania be limited to 10% of the combined production (*supra*, p. 34). It was not designed to secure for du Pont a larger financial return, through royalty payments, for use of its patents; the prohibitive additional "royalty" provision, by limiting Sylvania's moistureproof production, *pari passu* limited Sylvania's royalty payments. Plainly such a provision is not "normally and reasonably adapted to secure pecuniary reward for the patentee's monopoly." See *United States* v. *General Electric Co.*, 272 U. S. 476, 490. The agreement did, on the other hand, fortify du Pont's monopoly power. As to the important moistureproof type of cellophane, it assured to du Pont a lion's share of the market, placed Sylvania at a competitive disadvantage by denying it the economies incident to large-scale production and distribution, and relegated it to a follow-the-leader, second-class-competitor role.[103]

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[103] See *Hartford-Empire Co.* v. *United States*, 323 U.S. 386, 422-424, where this Court upheld an injunction against enforcing, or embodying in any new patent license, any direct or indirect restriction on the "quantity" of the licensee's production or the "market" in which he might sell the licensed product.

4. *Du Pont Continued to Possess Monopoly Power Achieved by Means of Illegal and Exclusionary Agreements Notwithstanding Ultimate Modification or Cancellation of these Agreements*

We have shown above (1-3 *supra*) that du Pont's achievement of dominant power over the cellophane trade was founded upon and buttressed by agreements which were illegal and exclusionary, and that there is accordingly no room for a suggestion that monopoly was "thrust upon" du Pont. We point out additionally that it is no answer that the agreements to which we have alluded were ultimately modified or cancelled.

The facts relating to modification and cancellation may be restated, in summary form, as follows:

(a) The territorial restrictions upon the *sale* of cellophane established by du Pont's agreements with La Cellophane (1923), Kalle (1929), CIL (1931, 1933), and BCL (1935) were terminated *in 1940*, in view of "legal developments in this country," by du Pont's notice that it would no longer construe them as imposing such restrictions. The territorial restrictions upon *manufacture* of cellophane, express or implicit in the agreements, were not mentioned in the notice. See *supra*, pp. 24-25.

(b) The requirement of continuous technical exchange embraced in du Pont's agreements with La Cellophane (1923), and Kalle (1929) was eliminated *in 1941* as a result of wartime conditions, no

reference being made to territorial limitations upon the use of technology already exchanged. The requirement of technical exchange and the limitations on use of technology (except patents) already exchanged, contained in the du Pont-BCL agreement (1935), were eliminated *in 1948* (*i. e.*, after institution of suit). There is no indication that the territorial limitations upon the use of technology exchanged pursuant to the du Pont-CIL agreements (1931, 1933) were modified or cancelled. See *supra*, p. 25.

(*c*) The du Pont-Sylvania patent agreement (1933) was modified *in 1945*, with the following results: elimination of the provision requiring cross-licensing under improvement patents; conversion of outstanding exclusive licenses to non-exclusive licenses; abandonment of the penalty rate on production in excess of quota; lowering of royalty rates. See *supra*, p. 37.

Entirely apart from any question as to whether the objectionable provisions and features of the agreements were completely purged, it is clear, as indicated in the above summary, that they were operative during that period of years in which du Pont's dominant position in the American cellophane industry was established and expanded. The modifications and cancellations took place in the 1940's, that is to say, at a time when du Pont's monopoly power was fully assured and when, as the company recognized, "legal developments" were far more to be apprehended than the prospect

of serious competition from other producers (see *supra*, p. 121.

If this were a suit to enjoin a particular agreement or a particular trade practice, a claim of abandonment would be a relevant consideration (although, even in that event, it would be necessary to adduce affirmative and convincing proof that the abandonment was complete and bona fide, and that there was no prospect of resumption, *Local 167* v. *United States*, 291 U. S. 293, 297; *United States* v. *Crescent Amusement Co.*, 323 U. S. 173, 186).[104]

Here, however, we are concerned not with the present viability of restraining agreements but with the monopoly which they helped to found and maintain. "In this type of case" the Court must "start from the premise that an injunction" against the particular means by which monopoly power was achieved would not, in any event, be "adequate to protect the public interest," since that would mean that "those who had unlawfully built their empires could preserve them intact," *Schine Chain Theatres* v. *United States*, 334 U. S. 110, 128. Thus, neither the scope of the belated modifications and cancellations, nor the motives which prompted them (however revealing), is a decisive factor. The crucial issue is whether monopoly and the "continually operating force" which it carries with it (*United States* v. *Standard Oil Co.*, 221 U. S. 1, 78) were achieved by unlawful and exclusionary means. If

[104] Compare the district court's finding that "[t]he evidence contains no indication of possibility these agreements will be revived in any form" (fng. 608, R. 229-231).

so, the defendant cannot come "within the exception established in favor of those who do not seek, but cannot avoid, the control of a market." *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, 431 (C.A. 2).

5. *Du Pont's Research, Technical Skills, Business Efficiency and Moistureproof Patents do not Constitute a Defense.*

The district court found that du Pont's research, technical skills and business efficiency have been of a high order, enabling it to improve the quality of cellophane, to manufacture it at reduced costs and to promote its utilization for a wide variety of new and different purposes. See *supra*, p. 41.

We do not seek to gainsay du Pont's skill and efficiency as a producer and marketer of cellophane. It suffices to point out that it is not enough for a defendant in a monopoly case to show that its technical and business skill is a source of strength. It must also appear that it has not limited and suppressed competition by illegal and exclusionary means. Here, as we have shown above, the contrary appears.

It was similarly urged in the *National Lead* case that, "during the regime of the combination" there involved, "the art has rapidly advanced, production has increased enormously and prices have sharply declined." 63 F. Supp. at 525. As Judge Rifkind went on to state *(ibid.)*, "The evidence does show as much; but it does not follow that the public interest has not been abused. Indeed, the major premise of the Sherman Act is that the

suppression of competition in international trade is in and of itself a public injury; or at any rate, that such suppression is a greater price than we want to pay for the benefits it sometimes secures." Whether progress would have been greater, he continued, had there been competition, necessarily involves speculation; but the economic theory underlying the Sherman Act and binding on the courts is that competition and diversity are the most reliable protectors of the public weal. To similar effect, see Judge Learned Hand's discussion in the *Aluminum* case, 148 F. 2d at 428-430, and Judge Wyzanski's opinion in *United Shoe*, 110 F. Supp. at 341-342.

The moistureproof patents, upon which the district court placed considerable emphasis and which it held to be "a defense" (R. 311), require separate treatment.

As already observed, the district court held that the basic agreements with La Cellophane, pursuant to which du Pont entered the cellophane business in the United States in 1923, were perfectly lawful, notwithstanding the facts (a) that they undertook to preclude the importation into the United States of cellophane made by La Cellophane's process or the use of that process in this country by companies other than du Pont, and (b) that they were the foundation of further agreements dividing the world into exclusive territories for cartel members and establishing a pooling of patents and technology among such members. See *supra*, pp. 19-26, 122-126.

Having thus made the fundamental assumption that du Pont "entered the business with a legitimate head start" (R. 316), the court was of the view that it might give decisive weight to the moistureproof patents for which du Pont was responsible, even though "moistureproof" came after du Pont's preeminence in the North American cellophane field was assured and established and though the patents were less extensive in coverage than the entire field of business (cellophane generally) which du Pont was charged with monopolizing.

It is undisputed that the fundamental process which du Pont employs in making *all* cellophane, however it is subsequently treated or coated, is La Cellophane's basic process. See *supra*, pp. 14-15. ~~cellophane almost $2,000,000 (fng. 337, R. 165).~~ As the court also found, in the absence of agreement with La Cellophane, du Pont would have required at least "five to eight years" and the outlay of "very substantial" expenditures to develop "a successful process for cellophane manufacture" (fng. 32, R. 70).[105]

Aware, when it entered the business, that cellophane would have wider utility if its resistance to moisture were increased, du Pont soon developed, at almost negligible cost, a coating for cellophane which served that purpose. *Supra*, pp. 33-34. A product patent on moistureproof cellophane was issued to it in November, 1929. *Ibid.*[106] In that

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[105] Compare the experience of Olin, *supra*, p. 30.

[106] Subsequently, in 1931, four process patents were issued to it. *Supra*, p. 34.

year, du Pont's sales of plain cellophane aggregated more than $4,000,000 and its sales of moistureproof cellophane almost $2,000,00 (fng. 337, R. 165). Thereafter, "moistureproof" took the lead and it has since had the bulk of the business. *Ibid.*

It is familiar experience that a monopolist will seek to improve an art, when improvement gives promise of wider sales and particularly when it gives promise of an opportunity to buttress monopoly power by patents. Compare, *e.g.*, the *National Lead* case, discussed *supra*. It is important to emphasize, in the instant case, that one cannot make moistureproof cellophane, or give cellophane any other gloss, without manufacturing plain cellophane first. And it is also worth emphasis that the moisturreproofing of cellophane, once one has the cellophane, is a relatively simple matter, as attested not only by the small amount which du Pont allocated and spent on moistureproofing but by the fact that Sylvania, after it obtained the basic cellophane process from SIDAC, was able to develop quite promptly a moistureproofing process (at which point du Pont, with equal promptitude, claimed infringement of its product patent). *Supra*, p. 34.

It is obvious, we submit, that if a company has unlawfully obtained monopoly power over the manufacture and sale of a product, it cannot defend the charge by showing that, in the course of time, it has improved (or, more accurately, improved for purposes of many of the users) the product monopolized, and has obtained patents on

the basis of that improvement. Indeed, this is but a particular application of the more general proposition previously emphasized: that a company which would justify the exercise of monopoly power must show that its position was achieved solely by permissible means and, in that sense, thrust upon it. *United States* v. *Aluminum Co. of America,* 148 F. 2d at 429-430; *United States* v. *United Shoe Machinery Corp.,* 110 F. Supp. at 342. Thus, in the instant case, we are necessarily brought back to the question, discussed above, whether du Pont's cellophane monopoly was illegal from its inception by virtue of the agreements (found innocuous by the district court) upon which its position was founded and has continued so largely to rest.

If these agreements are, as we contend, unlawful and exclusionary, there are further reasons why du Pont may not be permitted to interpose its moistureproof patents as a defense. The moistureproof patents, the technology involved in du Pont moistureproofing, and any improvements made in the process were fully subject to the pooling arrangements and territorial restrictions established by the foreign agreements. And the moistureproof patents were the subject of the du Pont-Sylvania agreement, which was also characterized by illegal and exclusionary features.

Du Pont's agreements with the foreign companies were "carried out in accordance with [their] terms" (fng. 601, R. 228). This means, as applied to the moistureproof process, that du Pont's mois-

tureproof technology and patents were available to the other members of the cartel for use in their respective territories; that all related inventions, technology and patents (including what was yet unborn) which the other cartel members might produce were to be reciprocally available to du Pont; and that, without regard to the life of its patents, du Pont, in its territory (which was not limited to the United States), would be immune from competitive utilization of the process (*i.e.*, manufacture by use of the process or sale of products made thereby) by the other cartel companies. To state these facts is to make plain that the foreign agreements, providing as they did for pooling and for a world-wide elimination of competition among the world's important producers, went far beyond what might be considered "necessary to the enjoyment of or ancillary to * * * patent rights," *United States* v. *Besser Mfg. Co.*, 96 F. Supp. 304, 311 (E.D. Mich.), affirmed, 343 U.S. 444.

So far as the domestic du Pont-Sylvania contract is concerned, "moistureproof" was the sole subject of agreement. As pointed out above (*supra*, pp. 137-138) in the circumstances of this case that agreement precludes reliance upon the moistureproof patents as a defense to the charge of antitrust violation. See *Mercoid Corp.* v. *Mid-Continent Co.*, 320 U.S. 661, 670.

In sum, the moistureproof patents fail to provide a defense to the charge of monopolization, not only because du Pont's monopoly power was established and nourished by illegal and exclusionary

agreements, but also because the patents themselves became part and parcel of these agreements, and thereby tainted.

CONCLUSION

Almost eight years have passed since this case was instituted. Trial of the cause, covering a period of almost sixteen months, resulted in entry by the court of 854 findings of fact. Every finding of fact sought by du Pont (854 in number) was made, and the Government's appeal does not challenge the court's findings of specific facts. If, as the Government contends, facts which are undisputed establish that du Pont has illegally monopolized trade in cellophane, we submit that the Court should so adjudicate and should limit the issue on remand to determination of the relief to be awarded against du Pont.

In *United States* v. *Aluminum Co. of America*, 148 F. 2d 416, the district court had dismissed the complaint after a lengthy trial and after making over 400 findings. *Id.*, at 421. The court of appeals, which there had final appellate authority, held that facts which were undisputed established that "Alcoa" had monopolized in violation of Section 2 (*id.*, at 432), and it remanded the case to the district court for entry of a judgment giving effect to the appellate court's adjudication (*id.*, at 445-448). In *United States* v. *Griffith*, 334 U.S. 100, the district court, after trial and entry of findings of fact, had dismissed the complaint. On appeal, this Court held that the defendants had violated Sections 1 and 2 of the Sherman Act. *Id.*, at

109. The sole questions which this Court left for determination by the district court on remand were the scope of one aspect of defendants' violation and "the fashioning of a decree which will undo as near as may be the wrongs that were done and prevent their recurrence in the future." *Ibid.*

It is respectfully submitted that a similar course should be followed here. This Court should adjudicate that du Pont has violated Section 2 of the Sherman Act, should reverse the judgment of the district court, and should remand the cause to that court with directions to determine the relief to be granted against du Pont.

SIMON E. SOBELOFF,
Solicitor General.

STANLEY N. BARNES,
Assistant Attorney General.

CHARLES H. WESTON,
RALPH S. SPRITZER,
WILLIAM J. LAMONT,
JAMES L. MINICUS,
JOHN BODNER,
Special Assistants to the Attorney General.

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